An Evaluation of the Black Country in Motion: A Community Led Intervention for the Engagement of Hard to Reach, Physically Inactive Communities of the Black Country

By

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Declaration

I certify that this work has not been accepted in substance for any degree, and is not concurrently being submitted for any degree other than that of Doctor of Philosophy being studies at the University of Wolverhampton. I additionally declare that this work is the result of my own investigations except where otherwise indicated by reference.

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ABSTRACT

Physical activity has been associated with reducing the risk of poor health and improving health and wellbeing. However contrary to this knowledge, physical activity levels remain significantly low with an estimate of 20 million adults being inactive in the UK (BHF, 2017), the cost of which is a suggested £2.8 billion per year to the UK's economy. Subsequently, those who experience socio-economic disadvantage are more inclined to be inactive. As a means to tackling inactivity within such demographic groups, community-led interventions have been used to engage individuals and increase social cohesion and social capital. However the challenges experienced in measuring the efficacy, effectiveness and impact of real world community intervention have been well documented.

Objectives - To evaluate the effectiveness of a community based, community-led physical activity intervention aimed at increasing physical activity

Intervention - The Black Country in Motion (BCiM) is a 3 year programme, delivered in areas of high socioeconomic disadvantage in the Black Country area of the West Midlands. UK. The intervention aimed to increase physical activity, wellbeing and social capital.

Design of the Evaluation - This evaluation uses a mixed-methods approach comprising of measuring physical activity using the International Physical Activity Questionnaire, the examination of change through qualitative analysis (based upon the Transtheoretical model for behaviour change framework), examining volunteerism in these communities and the volunteering physical activity facilitators and process evaluation.

Setting - Community facilities and leisure centres in the Black Country Area of the West Midlands, UK

Participants - Over a 3 year period, n=1205 participants had registered with the BCiM programme, at the point of analysis n=991 had engaged with the programme. Ages ranged from 12- 84 years and from across the Black Country region. 39.1% (n=387) were male and 60.9% (n=604) female participants. The objective of the intervention was to increase the physical activity of these participants, this was measured using the International Physical Activity Questionnaire and through semi-structured interview. Interviews identified the processes of change and psychosocial variables that impacted engagement adherence/drop out.

Volunteers - A total of one hundred and forty four volunteers were recruited to deliver physical activity, of whom 22 were interviewed examining narratives and experiences throughout the delivery of the programme. Volunteers were aged 19-62 (SD = 32), 14 females and 8 males.

Measuring Behaviour Change and Outcome Evaluation - *Quantitative Measures* - All participants completed a single item measure at baseline and were required to complete the International Physical Activity Questionnaire (IPAQ) to determine physical activity levels. This was a predetermined measure from funders and measured the duration and intensity of activity. Physical activity was measured at

baseline, 3, 6 and 12 month follow ups. Drop out in the research process was significant and at the point of analysis n=73 participants had completed this measure.
Qualitative Measures - To determine the effectiveness of the community-led intervention, 5 case studies (including interview data from 11 engaged participants and 12 disengaged participants), examined the processes of change, project efficacy and the psychosocial variables that impacted community engagement.

Process Evaluation - A number of physical activity sessions were delivered as planned. Recruitment was challenging and the original target number of participants was not reached at the point of project completion. At the point of analysis, the reach of the project had engaged 991 participants, 36.1% (*n=358*) of those that had registered and attended at least one physical activity session resided in the target areas of this intervention. The efficacy of the programme was not delivered as intended and the sustainability of sessions was affected by low attendance and attrition.

Volunteerism and the Community Volunteer - With current sport policy rhetoric including volunteering and the voluntary sectors impact on sport and physical activity delivery. This thesis examines community volunteering. One hundred and forty-four volunteers were recruited for the delivery of physical activity in this intervention. Drawing on this intervention's emphasis on community and community volunteering, the principles of volunteerism were explored within these communities. Using semi-structured interviews, the narratives of those who volunteered in the BCiM were examined to identify the impact of this community intervention on developing social capital and community cohesion.

Conclusion - The Black Country in Motion was effective in facilitating and enabling social mobility and increases in physical activity with those who were inactive prior to engagement and adhered to the programme. Those that had disengaged from the programme had suggested that the intensity of exercise delivered was challenging and in some instances subsequently sought alternative provision. It is argued that this may be a result of inexperience of the volunteers in their inability to differentiate activities and intensity. Those that were engaged discussed the social bonds that were developed and reaffirmed through their engagement in their communities, however these social bonds were fragile, as experiences within a community were relative to the individual. It is suggested that further investigation in recruitment and retention is required.

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Publications and Conferences

Jackson, J. (2015) Community Led Sport Intervention and the Impact of the Volunteer. Biscomb, K., Medcalf, R. and Griggs, G. (eds) Current Issues in Contemporary Sport Development. Cambridge Scholars Publishing

Jackson, J., Biscombe, K., Lane, A.M., Medcalf, R., Nevill, A. and Sellars, C. (2018) Community led intervention designed to increase physical activity (currently in peer review)

Jackson, J,. Biscomb, K., Medcalf, R., Leflay, K., Sellars, C. and Lane, A.M. (2018) Exploring Community Led Provision: Communitarianism, Policy and the Community Volunteer (currently in peer review)

*9th September 2014 – 'Community led Sport Intervention and the Impact of the Volunteer' –University of Wolverhampton. European Sport Development Network.

*13th February 2015 – 'Community sport Intervention and its Impact upon Increasing Physical Activity' The State of Play: What does intelligence and Insight tell us about Black Country Physical Activity and Sport. Black Country Beactive County Sports Partnership

*23rd March 2015 – 'Identifying the Barriers to using IPAQ as a Research method in the Black Country'. Get Healthy, Get Active. Sport England Workshop

*12th May 2015- 'Challenging Volunteers and Volunteering in a Challenging Environment'. Edge Hill University. TIME, TIME, TIME? Volunteering in a Challenging Environment. Voluntary Sector and Volunteering Research Conference

*14th April 2016 – 'Evaluating the Effectiveness of a Geographically Targeted Intervention aimed to Increase Physical Activity' University of Wolverhampton. BASES Division of Physical Activity and Health Day

*9th September 2016 – 'Evaluating the Black Country in Motion' what this intelligence informs Black Country practitioners. Black Country Physical Activity and Sport. Black Country Beactive County Sports Partnership

Chapter 1- Introduction and Background

In this introductory chapter, it is the intention of the researcher to provide context to the research project and a background to the areas of study within community intervention to tackle inactivity and volunteerism. Section I of this chapter will explore a brief background to community physical activity intervention and sport. Section II will provide a contextual examination of the Black Country area and the socio-economic challenges this region encounters. Section III will outline the structure of this thesis, providing insight to the multifaceted and somewhat holistic examination of community exercise intervention.

Section I: Background

1.1 Community Physical Activity and Sport

Exercise and physical activity has the capability of reducing the risk of poor health and further improve many aspects of health and wellbeing, both physiological and psychological (Hammond, Bodie and Bundred, 1997). Research shows those who partake in physical activity have lower risks from coronary heart disease (Parmenter, Dieberg, Phipps and Smart, 2015), reduced threat of osteoporotic fractures (Babatunde, Forsyth and Gidlow, 2012), have a lower risk of suffering with depression (Josefsson, Lindwall and Archer, 2014), obesity and higher life expectancy to name a few. Furthermore it is suggested that 30%-40% of people with type 2 diabetes are inactive (Van der Heijden, Pouwer, Romeijnder and Pop, 2012). Drawing on meta-analysis results, Thorp, Neville, Maile and Dunstan, (2011) reported sedentary behaviours further result in weight gain and associated diseases, such as obesity, heart disease and diabetes, thus increasing mortality risks. Furthermore the impact of physical activity upon mental health has been examined by a plethora of academics

identifying the benefits of exercise on mental well being (Hamer, Stamatakis and Steptoe, 2009; Morgan, 2013; Biddle and Asare, 2011). Such research has further influenced policy and government directive in that a general, more holistic approach is required when tackling inactive populations.

Contrary to this well documented knowledge, physical activity levels within the UK are significantly low (Sport England, 2014). In accordance to the *Health and Social Care Information Centre* (HSCIC, 2014), current figures of physical inactivity 26% of women and 19% of men are physically inactive. Reports within the HSCIC are collated from a number of sources which include the *Health Survey for England* (HSE), *The Active Peoples Survey* (APS), *The Taking Part Survey* (TPS) and *The National Travel Survey* (NTS). All of which record physical activity surveys which are conducted examining up to 4 weeks of self-reported participation, identifying activity frequency, type of activity and intensity. However research by the British Heart Foundation (BHF, 2015) suggest an association between physical activity and economic status, proclaiming current figures of physical inactivity are higher in the lower income quartile (45% of men and 53% of women). Smith, Hart, Watt, Hole and Hawthorne (1998), suggest within western societies those of a lower socioeconomic status represent a significant risk of leading sedentary lifestyles, with an increased lack of physical activity, exercise or sports. Furthermore drawing on Bankoski, Harris, McClain, Brychta and Caserotti, Chen, Berrigan, Trojana and Koster (2011), irrespective of moderate to vigorous physical activity, prolonged periods of sedentary behaviours may influence cardio metabolic risk.

Subsequently, sedentary lifestyles and physical inactivity are prolifically increasing the economic pressures upon the UK's beleaguered national health services (Beedie,

Mann, Jimenez, Lane, Kennedy, Domone and Whyte, 2016). Frew, Bhatti, Win, Sitch, Lyon, Pallan and Abad (2012) argue physical inactivity is a '*largely avoidable cause for ill health*' with suggested cost of £8.2 billion per year to the UK economy (p.207). Drawing on data collated by the HSCIC based on diseases associated to physical inactivity, it is estimated that the cost to the NHS is £1.6 billion. Therefore the facilitation of physical activity aimed to increase participation inlower socioeconomic communities with prominent sedentary behaviours is thus increasing. Informed by a plethora of research and literature, reducing sedentary time and increasing exercise and sport, reduces the risk of chronic illnesses such as diabetes, coronary heart d⁹isease and obesity (Martin, Fitzsimons, Jepson, Saunders, Van der Ploeg, Teixeira, Gray, and Mutrie, 2015).

The engagement and adherence in physical activity, of those within this socioeconomic group has proved to a challenge. Barriers to participation in community physical activity have been examined extensively (further developed in Chapter 2). Suggesting a plethora of reasons for inactivity including accessibility, time and affordability to name a few.

1.2 - Measuring Impact: Monitoring and Evaluation

Measuring the impact of such initiatives have become an integral element of physical activity and sport intervention (Hylton, 2015). The intent for a review of practice and the measurement of impact was to 'inform an evidence based approach' accumulating evidence to inform policy, provision and practice (Coalter, 2008: p.26) further informing mechanisms and processes. Coalter goes on to argue that there is a general lack of robust measures, and as a result policy makers lack evidence to connect issues in health and sport (Bloom, Grant and Watt, 2005).

An additional challenge to measuring impact has been highlighted by UK Active (2014) in the disparities in evaluative evidence bases, which measure intervention effectiveness. With the significant impact of inactivity on health and wellbeing, there has been an increase in community intervention to tackle such behaviours. The increase in public health intervention targeting physical inactivity require concise reviews of efficacy, effectiveness and affordability (Beedie, Mann, Jimenez, Lane, Kennedy, Domone and Whyte, 2016). Idealistically such review should enable the practice and delivery of intervention, however research has highlighted there continues to be a gap between research and practice in the provision of health intervention (Glasgow, Lichtenstein and Marcus, 2003; Kerner, Rimer and Emmons, 2005; Paez, Reis, Parra, Hoehner, Sarmiento, Barros and Brownson, 2015). The premise of which is prominent by the valid evaluation of such interventions, with practitioners and policymakers alike distinguishing between the efficacy and effectiveness of health interventions (Michie, Richardson, Johnston, Abraham, Francis, Hardeman, Eccles, Cane and Wood, 2013).

Distinguishing between efficacy and effectiveness contributes an essential facet to intervention analysis and evaluation (Gartlehner, Hansen, Nissman, Lohr and Carey, 2006). Moreover efficacy and effectiveness interventions differ in terms of objectives, outcomes, the theoretical models adopted, participant selection, nature of the intervention and the interpretation of results (Courneya, 2010). Efficacy interventions determine whether a health intervention produces the expected results under ideal circumstances. Whereas effectiveness interventions measure the beneficial effect in what Courneya (2010) describes as ‘real world’ clinical situations (p.3). Developing this further within behaviour change or cessation intervention, efficacy interventions

are characterised as controlled homogenous groups, supervised over a short period of time. Contextualising Glasgow, *et al*, (2003), effectiveness interventions predominately apply standardise access among a population with varying levels of participation, delivered under real world conditions. Simplistically defined as the implementation of an intervention, across a broadly defined participant group, in a real world setting.

Drawing on cessation literature in public health, there is unequivocal evidence pertaining to the need to bridge the gap between efficacy and effectiveness in behaviour change intervention (Beedie *et al*., 2016; Carroll and Rounsaville, 2003; Wandersman, Duffy, Flasphohler, Noonan, Lubell, Stillman, Blachman, Dunville and Saul, 2008). Green (2001) outlines frustrations associated with gaps in efficacy and effectiveness intervention. Green suggests a gap between efficacy of best practice and effectiveness when implemented in harder to reach areas; appropriate adaptation of best practices for target populations. Green further suggests provision gaps between successes in behaviour changes among affluent segments of the population and lesser success within effective interventions for populations with higher health/educational inequalities and finally a gap between research and practitioners.

Beedie, *et al,* (2016) argue there is limited evidence supporting the effectiveness of such interventions, systematic reviewing previous research in physical activity and exercise intervention, evaluation and meta-analysis. Public Health England and sports /exercise councils within the UK continue to provide systematic reviews for physical activity intervention however little evidence has supported effectiveness with less than 10% evaluated within the Promising Practice Report (Public Health England, 2014) meeting a NESTA level 3. Contextualising the work of Michie, Abraham, Eccles,

Francis, Hardeman and Johnston's (2011) provides a more relevant perspective for this study. Drawing on their systematic review of behaviour change interventions, it becomes apparent there are significant complexities of developing and evaluating such interventions. It is suggested that *'the development of effective interventions are hindered by the distinct lack of nomenclature to specify and support outcomes. Therefore impeding the possibility of replicating effective interventions, limited understanding of fundamental mechanisms for success and the 'precise ingredients'* for an effective intervention (p.2). Coalter (2008) elaborates upon Pawson (2006) notions of major limitations in the nature of evaluating programme processes. Suggesting intervention programmes are open and active, dealing with 'active subjects', therefore there are limitations in the comprehension of the social processes involved in community intervention (p.36).

1.3 - The Reality of Participation

The premise of community intervention, when targeting inactivity, is to facilitate and develop interventions which motivate and include those who are not essentially engaged with local community provision. It has been widely identified that inactivity is more prevalent in areas of socioeconomic disadvantage (APS, 2015; Sawyer, Ucci, Jones, Smith and Fisher, 2018). However social influences can often discourage participants; research has identified barriers to participation and is subsequently associated with a lack of disposable income, education, occupation, class and culture (Hylton and Totten, 2013). Although there are a plethora of social influences that impede participation, there are subsequent barriers with regards to the availability of resources during the current period of austerity (as discussed later in this chapter) (Widdop, Neil, Parnell, Cutts and Millward, 2018). According to The Active Lives Survey (2016) adults living in the most deprived areas of England are 46% more likely

to obese and inactive. The links between health inequalities and deprivation are further highlighted in the government's briefing paper Obesity Statistic (2018). In which it is highlighted that in the most deprived quartile of England, 32% of adults are obese and a further 34% are overweight. Within this report, it is suggested that the areas of the Black Country are amongst those with significant levels of obesity, inactivity and deprivation.

There are significant disparities when exploring health related behaviours, intervention success and socioeconomic status. Those within the highest income quartile of the UK's population, 42% of men and 34% of women undertake the recommended moderate physical activity per week; in comparison to 28% and 26% in the lowest quartile (APS, 2013). Evaluating the NHS Health Trainer Intervention, Gardner, Cane, Rumsey and Michie (2012) proposed socio-economically deprived groups were significantly more difficult to recruit, retain and adhere to interventions based upon health and physical activity. Suggesting it is not from a lack of motivation but that disadvantaged socio-economic groups have limited accessibility to social resources to sustain behaviour in the long term. Primarily literature highlights barriers to physical activity as prevalent through the socio-ecology spectrum, which specifically suggests limited leisure time, limited access to facilities, a lack of social support, limited knowledge and educational inequalities and financing activities to name a few (Sjors, Bonn, Lagerros, Sjolander and Balter, 2014; Ibrahim, Karim, Oon and Wan Ngah, 2013; Patay, Patton, Parker, Fahey and Sinclair, 2015). Furthermore, when both individual and social milieu is influential in determining the provision of physical activity, modifiable physical activity interventions should be considered (Downs and Hausenblas, 2005). Rutten, Abu-Omar, Gelius and Schow (2013) argue that in times of austerity, physical activity is seen to become an important solution to easing health

inequalities. Suggesting inactivity and sedentary behaviours are increasingly likely to become a policy issue. Rutten, *et al*, go on to propose influencing factors which outline a model for inactivity. Suggesting age, educational attainment, demographic and biological factors, attitudes, enjoyment, social support and physical environments all influence sedentary lifestyles. Developing this further, Sallis, Cervero, Ascher, Henderson, Kraft and Kerr (2006), proposition an ecological approach to creating active living and suggest 4 environmental variables which are influential for healthy living. These variables are recreation, transportation, occupation and household and further suggest improved designs of communities, transport systems and recreation facilities to encourage physical activity and exercise.

Developing the associations between health, well-being and physical activity further, a plethora of studies have additionally highlighted people's health and well-being is robustly affected by lifestyle choices and behaviours such as smoking, diet and physical activity. The cessation, changes or maintenance involved in maintaining good health are subject to adherence of self-care activities and in the instance of physical activity and exercise aims to cease sedentary behaviours.

Despite nation strategies to engage hard to reach populations and mass participation in physical activity. It is suggested that unsustainable investment in community sport and public health, alongside the withdrawal of central and local funding have impacted these services, specifically during austerity (Widdop, *et al*, 2018).

1.3.1 - Policy and National Physical Activity Strategy

With an increase in sedentary lifestyles, increasing activity has become an area of interest within policy; with public health agendas becoming significantly affiliated with the sport and physical activity sectors (Morgan, 2013). The guiding message being to

encourage people to simply move more (UK Active, 2017). The traditional premise of sport policy is essentially to devise “better, effective ways of promoting interest, participation or performance in sport” (Hylton, 2013, p.3). The intrinsic value of this form of community development has become increasingly multi-faceted as it additionally contributes to other governmental policy, such as public health, national prestige, community development, health and addressing social division.

Contextualising policy literature highlights that sport policies subsequently draw upon political ideologies (Devine, 2013; Coalter, 2007; Collins and Kay, 2003). Since 2008, rapid changes in policy have seen sport and physical activity adopting three fifths of the burden on health interventions attempting to decrease inactivity in communities experiencing social and economic inequality (Collins, 2013).

Mackintosh (2016) examines the mass participation agenda that is inherent within current policy. Highlighting that inactivity and the obesity epidemic is at the forefront of public health, Mackintosh argues there is a paradox in approaches to tackling this in the current era of austerity. With a lack of diversity and fragility in the delivery platform of provision under austerity, public health and sport provision is subsequently underfunded, relying heavily upon Third Sector provision.

In a fundamentally neo-liberalist approach to policy, changes to direct state control over policy delivery and implementation has altered, witnessing the dispersal of power to bureaucratic accountability (Bevir and Rhodes, 2008). This dispersal of power suggests a diminished accountability of the state to control policy delivery, and such delivery is controlled through networks and partnerships (Philpots, et al, 2010). Such partnerships primarily consisting of tightly controlled resources dependent upon

negotiations between national governing bodies (NGBs), sports councils (such as Sports England), local authorities and County Sports Partnerships (CSPs) (Skelcher, 2000). It is evident that through the austerity of budget cuts to local authorities and the growing private and third sector, there has been a shift in the delivery of community sport and exercise provision (Grix and Carmichael, 20111). In keeping with current Neo-liberalism ideologies, the self-governance of sport provision has become somewhat idealistic notion of a current Conservative government, seeing a move towards Big Society policy. It is this notion of self-governance that has influenced the Third Sector and volunteers have become a fundamental element of community provision delivery and social welfare (Kay and Bradbury, 2009; Evans, 2011). Criticism of Big Society policy as a medium to implement further social and welfare cuts has been examined, it is evident that such policy aims to rebalance welfare and social austerity towards greater private and voluntary sector involvement (Wiggin, 2011; Lister and Bennett, 2011; Ellison, 2011).

1.3.2 - Strategies

However the simplicity of a health recommendation may be somewhat confusing given the variations in guidelines. For example NHS guidelines suggest alternate to 150 minutes of moderate activity, strength exercises, 75 minutes of vigorous activity or a mixture of the two intensities. Additional public health guidelines include the introduction of strength training (NHS, 2018) and strategies such as 10,000 steps a day may contribute to the public receiving mixed messages about exercise. It is evident with the changes in policy and strategies that a somewhat holistic approach to interventions aimed at increasing physical activity. With this further confusion may occur, when examining additional strategies that provide alternative approaches to increasing physical activity. Such strategies as are highlighted in the *Sporting Futures*

- *A New Strategy for an Active Nation;* in which focus is placed upon 'physical wellbeing, mental wellbeing, individual development, social and community development and economic development' (p10). It could be suggested that those that have limited knowledge, experience and understanding of physical activity would find difficulties in the terminology used.

Evidence of this is seen implementation of strategies such as Sport England's *Active Nation* and *Towards an Active Nation* (2016) and UK actives *Let's Get moving*, *Generation Inactive* and *More People, More Active, More Often*. The aim of which is to increase physical activity and sport participation. Subsequently, it could be suggested that the role of community sport development and sport intervention aims to target the physical inactive in a bid to reduce sedentary behaviours. With specific onus on mass participation, the increase of physical activity and reducing inactivity, the community sport intervention is becoming a foundation for the implementation of strategies (Muller-Riemenschneider, Reinhold and Wilich, 2008). Combined with sport and exercise medicines affiliation to combating non-communicable disease, it appears community sport and physical activity provides the premise for challenging sedentary behaviours in high risk, low socioeconomic communities.

1.4 Aims, Objectives and Research Question

This aims of this study was to evaluate the efficacy and effectiveness of a community volunteer led, sport and physical activity intervention, aimed at increasing physical activity in geographically targeted areas. The areas in which this intervention occurred was across the Black Country area of the West Midlands and in areas of high socioeconomic inequality and with a population considered 'hard to reach'. The project under evaluation was known as the Black Country in Motion and was part of a

nationwide initiative called Get Healthy, Get Active. The aim and objectives are as follows:

Aim - The aim of the research was to evaluate the efficacy and effectiveness of this community led intervention in increasing physical activity amongst the Black County's inactive population.

Objectives -

- To evaluate the effectiveness of the BCiM project
- Identify the process of behaviour change from sedentary to active
- Examine the impact of the BCiM and physical activity upon quality of life and well being
- Explore barriers and challenges to physical activity and how these may have been overcome
- Explore community volunteering, the impact of the project and the volunteers impact upon exercise adherence
- Evaluate the sustainability of the BCiM

The research question being -

"Taking into account impact, does a person centred, community led, geographically targeted intervention increase the participation of inactive people in areas of high health inequalities and low participation?"

Originality of this work, is in terms of exploring community and community volunteers as a driver and fundamental to engaging inactive people in areas of socio-economic disadvantage. Traditional approaches to community development in this milieu has a focus on raising participation and 'sport for social good' (Houlihan, 2011). In which participation in organised sport and activity often enriches the notion of community.

In regards to research contributions, this study aims to examine the premise of community as a basis for engagement. Previous literature has explored using sport and exercise as a medium for community development. However the development and delivery of this project, placed the individual and their communities at the centre

of this initiative. Therefore, this research aims to examine in a postmodern society, can community engage the inactive in the hard to reach areas of the Black Country.

Section II - Context

1.5 The Black Country and Physical Inactivity

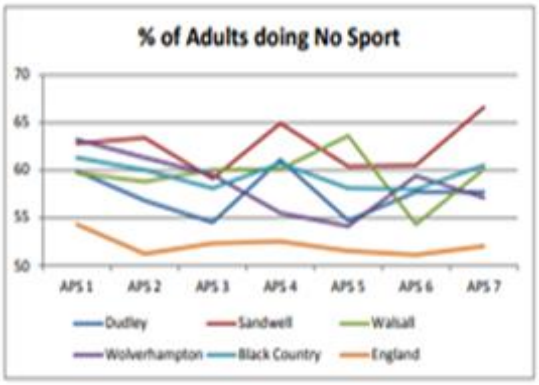
This thesis aims to contribute to the current understandings and practices in community sport interventions, aimed at increasing physical activity in low socioeconomic areas, known for inactivity. The basis for this research was to primarily evaluate the effectiveness of a community led, geographically targeted sport and physical activity intervention. As part of Sport England's national *Get Healthy, Get Active* initiative, The Black Country in Motion (BCiM) was a targeted intervention which aimed to engage physically inactive communities in community led physical activity and sport.

As highlighted in extant literature and national statistics, physical activity in areas of socio-economic inequality is often below the national average, the varying boroughs of the Black Country appear no different. The below tables demonstrates the statistical evidence of sport and recreation activity for the Black Country area in comparison to national statistics.

Table 1.1 Active Peoples Survey for the Black Country area

0 x 30

	APS 1	APS 2	APS 3	APS 4	APS 5	APS 6	APS 7
Dudley	59.9	56.8	54.5	61.1	54.7	57.7	57.7
Sandwell	62.8	63.4	59.1	64.9	60.4	60.5	66.6
Walsall	59.7	58.8	60	60.1	63.6	54.3	60.1
Wolverhampton	63.2	61.3	59.5	55.5	54.1	59.4	57.1
Black Country	61.3	60	58.1	60.7	58.1	58	60.5
England	54.3	51.2	52.3	52.5	51.5	51.1	52



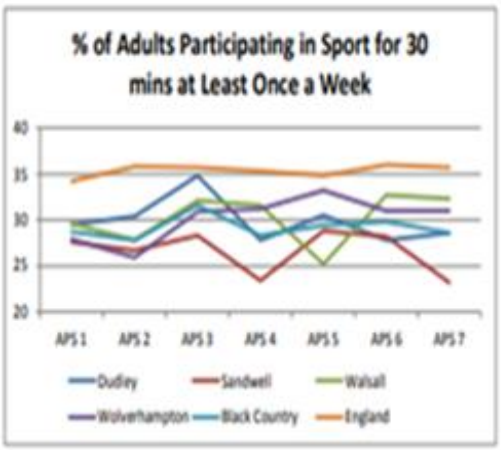
Sourced: Black Country BeActive Partnership, 2014

The targeted areas within the Black Country were predominantly affected by high health, educational and socioeconomic inequalities. This had been identified from Active People Surveys and prior insight. In comparison to the national averages, it is evident that the Black Country area has higher inactivity levels.

Table 1.2 Active Peoples Survey Comparing the Black Country area with National Averages

1 x 30

	APS 1	APS 2	APS 3	APS 4	APS 5	APS 6	APS 7
Dudley	29.5	30.4	34.8	27.8	30.5	27.8	28.6
Sandwell	27.6	26.7	28.3	23.4	28.8	28.2	23.2
Walsall	29.6	27.8	32.1	31.6	25.2	32.7	32.3
Wolverhampton	27.9	25.9	30.9	31.2	33.2	31	31
Black Country	28.7	27.8	31.6	28.3	29.4	29.8	28.6
England	34.2	35.8	35.7	35.3	34.8	36	35.7

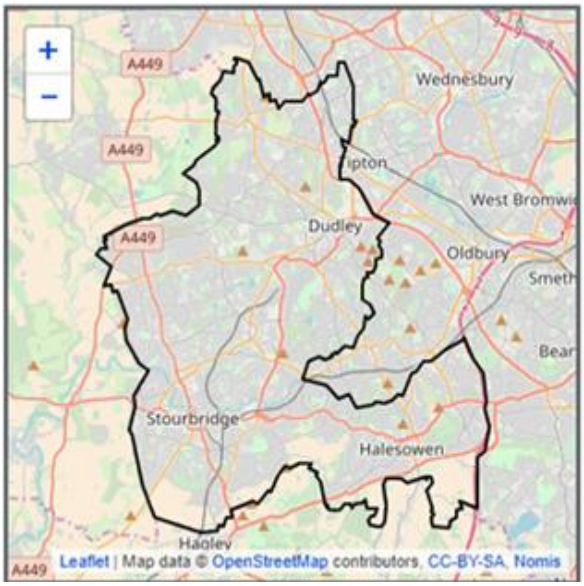


Sourced: Black Country BeActive Partnership, 2014

1.5.1 - Black Country Demographics

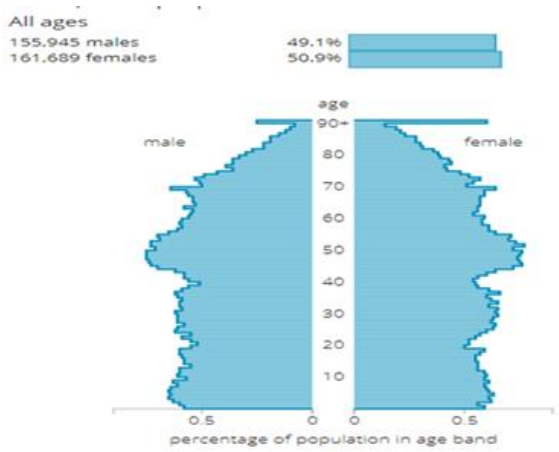
The following section of this chapter will outline the demographics for each of the boroughs within the Black Country. This additionally profiles the socio-economic inequalities experienced within this region.

1.5.1.1 - Dudley



The borough of Dudley is located in the West Midlands and has a population of 317,600 at the 2016 census. With an inherent history of industrialisation and extensive canal networks.

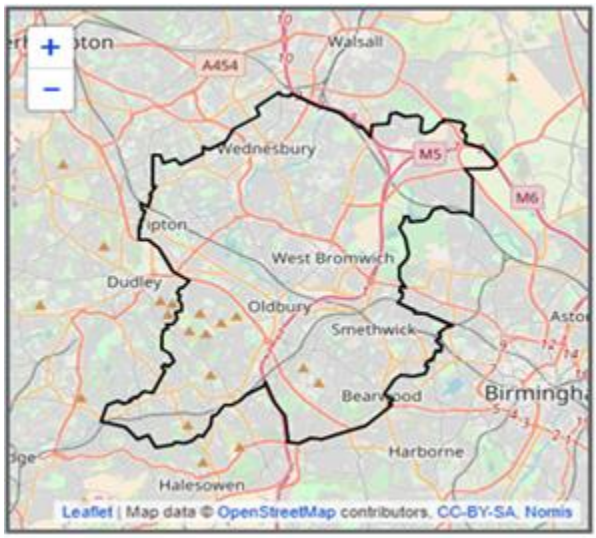
Figure 1.1 The borough of Dudley's Population Pyramid



Sourced: Office of National Statistics population survey (2016) and 2011 census

Dudley has a multicultural population and at the 2016 national survey 88.5% of the population described themselves as ‘white’, 4.6% as ‘Asian/Asian British’ 1.6% as ‘Black/Black British’, 1.5% as ‘Dual heritage’ and 3.8% as ‘other’ (Census, 2011). Unemployment is significantly high in this borough. Those employed in Dudley os 86,650 (38.2%) of the population, 5.3% are unemployed and 30% of the area have no qualifications. This Black Country area is ranked as 6th on the national deprivation and according to government statistics has the 8th highest percentage of obese children in the UK (Obesity Statistics Breifing Paper, 2018). Dudley is ranked 60th on the intensity of deprivation out of 354 local authorities, the deprivation position is due to the western wards of the borough being more affluent. The research focus is upon two wards of the Dudley area: Castle and Priory and Netherton and Woodside which has 10% more deprivation than other wards (English Indices of Deprivation, 2015). It was in these areas that this intervention focused its attention. Dudley has 26.1% of its population are inactive in comparison to the national average.

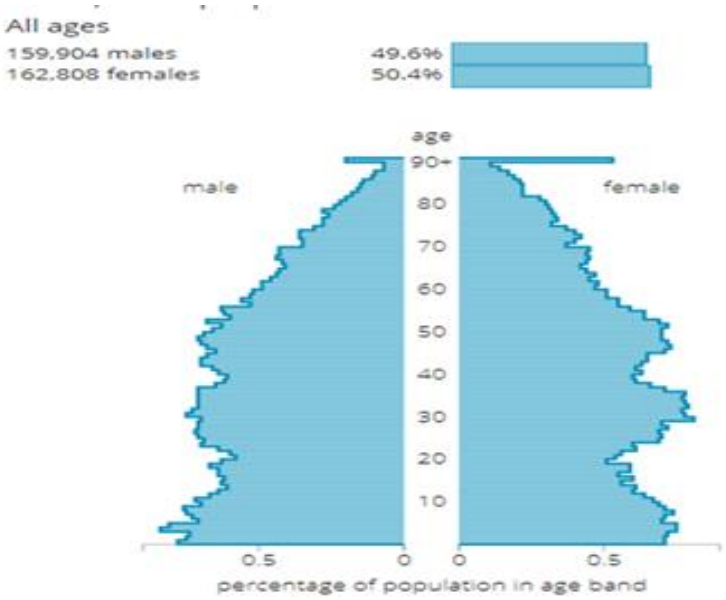
1.5.1.2 - Sandwell



The borough of Sandwell is located within the Black Country area in the West Midlands. Sandwell has a population of 322,600 and growing. Akin to Dudley this area

has an industrial heritage in which industrialisation an extensive canal networks are present.

Figure 1.2 - The Borough of Sandwell's Population Pyramid

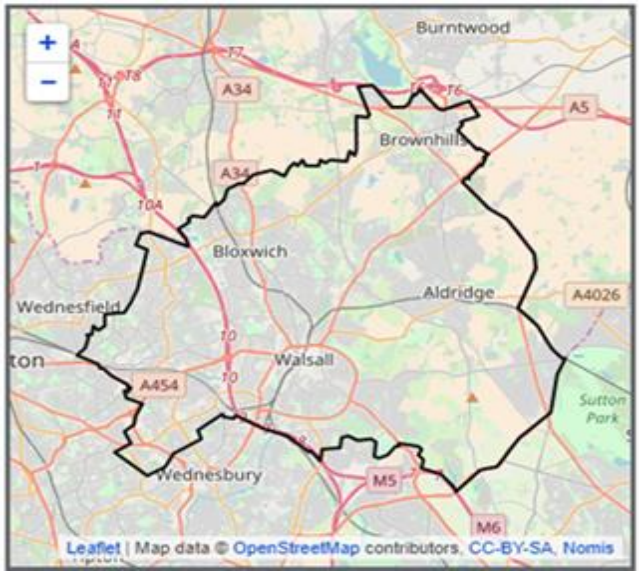


Sourced: Office of National Statistics population survey (2016) and 2011 census

The borough of Sandwell comprises of six authorities: Oldbury, Rowley Regis, Smethwick, Tipton, Wednesbury and West Bromwich. Sandwell borough was ranked 6th on the intensity of deprivation, which makes it the most deprived borough in the West Midlands area. As an ethnically diverse borough, it was highlighted by the Office of National Statistics (ONS, 2016) that Sandwell's population comprises of 50% 'white/white other', 20% 'Asian/Asian British, 6% 'Black/Black British' and 24% 'other'. The diversity of Sandwell is further highlighted by the 46 languages spoken in this borough. Drawing on ONS statistics 56.6% of Sandwell's population is in employment and 7.3% are unemployed. However educational inequalities are demonstrated by 35.2% of the population aged 16+ have no recognised qualifications. Inactivity and subsequent commensurate health issues are prolific (Obesity Statistics, 2018) as the borough of Sandwell is currently 8th in the highest percentage overweight or obese

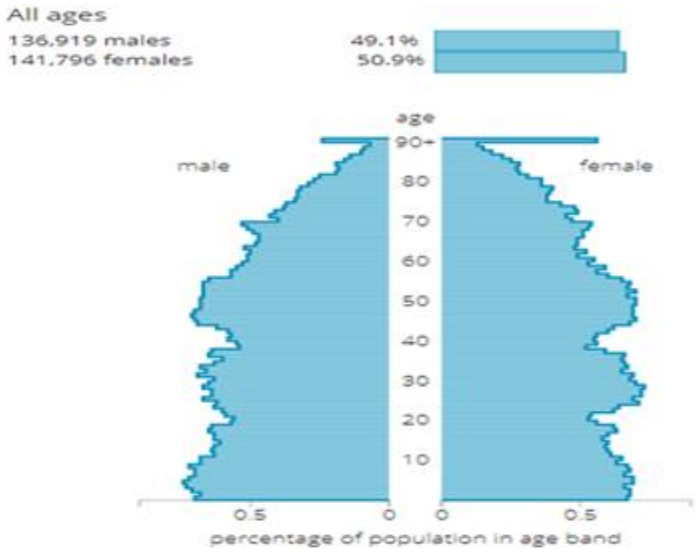
within the UK. The foci of this intervention was on the wards of Smethwick and Tipton Green. Inactivity in Sandwell is currently at 32.3% in comparison with national average.

1.5.1.3 – Walsall



The borough of Walsall resides in the Black Country area of the West Midlands. Walsall's population stands at 254,500 and comprises of six towns.

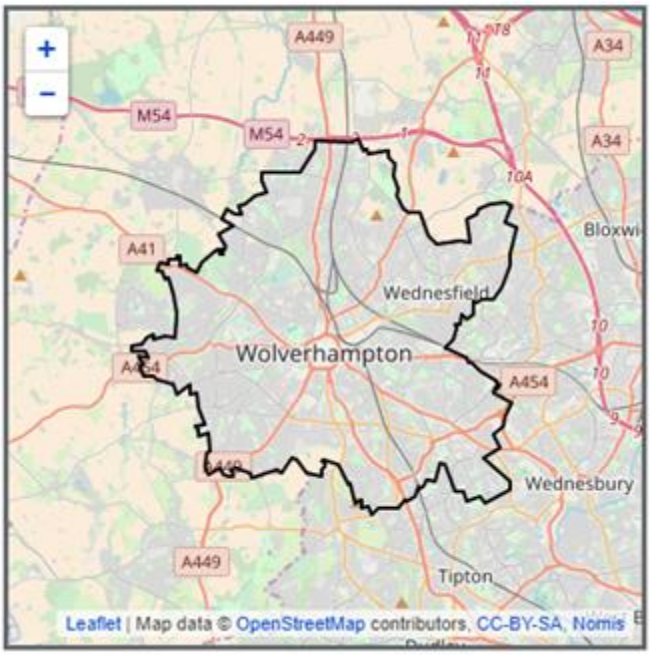
Figure 1.3 The Borough of Walsall's Population Pyramid



Sourced: Office of National Statistics population survey (2016) and 2011 census

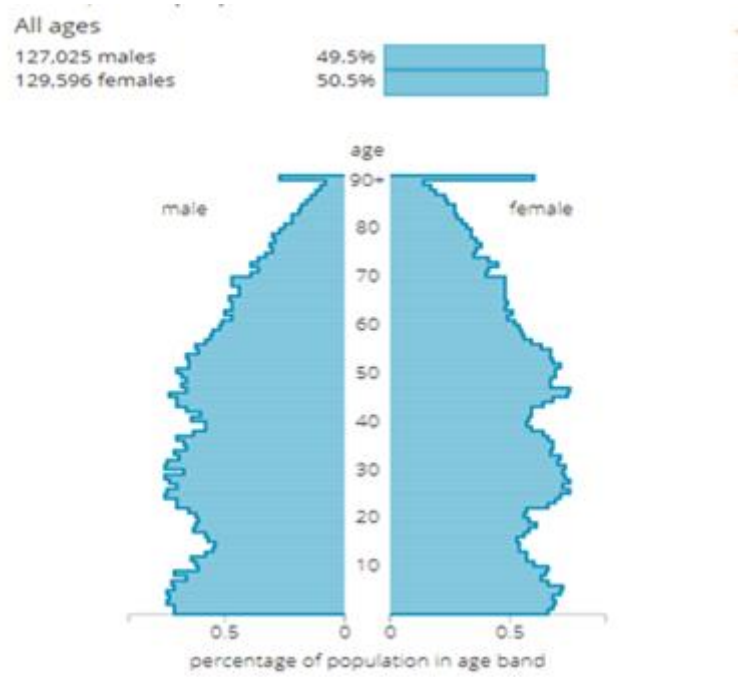
Walsall is one of the seven authorities that contribute to the West Midlands and as a borough, Walsall has six towns: Aldridge, Bloxwich, Brownhills, Darlaston, Walsall and Willenhall. Walsall's population comprises of 76.9% of those who identify as being 'White', 15.2% 'Asian/Asian British', 2.3% 'Black/Black British', 2.7% who are 'dual heritage' and 2.9% who identify as 'other'. As a borough Walsall ranks 26th nationally in the intensity of deprivation. 66.1% of the population are in employment, however 8.4% are unemployed, with 33.7% of the population (16+) holding no formally recognised qualification. Walsall compares unfavourably with national averages with regards to physical activity, with 28.7% identifying as physically inactive. Within Walsall 35.6% of the population are considered as either overweight or obese For the purpose of this project, the areas primarily focused on were Blakenall and Bentley and Darlaston.

1.5.1.4 - Wolverhampton



The city of Wolverhampton is in the West Midlands. This project focused primarily on the East of the city which is highly industrialised and recorded as having significant socio-economic deprivation

Figure 1.4 The Borough of Wolverhampton's Population Pyramid



Sourced: Office of National Statistics population survey (2016) and 2011 census

The city of Wolverhampton comprises of 20 wards in which the East of Wolverhampton has been the focus of this intervention. Wolverhampton has been ranked 18th nationally for its intensity of deprivation and recent research suggests 31.3% of children living in Wolverhampton experience poverty. Wolverhampton as a city has been ranked as 3rd highest percentage of children aged 4-12 who are overweight or obese (Obesity Statistics, 2018). There is significant variance between the affluent wards of Wolverhampton and those more deprived, with six years difference in life expectancy and 33% economically inactive. Wolverhampton has a diverse population with 64.5% identifying as 'white', 12.9% of the population identifying as 'Asian/Asian British', 3.8% 'Black/Black British', 3.4% 'Dual heritage' and 15.4% 'other'. Employment in the city is at 55%, however unemployment is currently 8% and 29.8%

have no formally recognised qualifications. Health inequalities have been suggested with 26.5% of the population being obese. With obesity rates increasing as 27% for Wolverhampton's children aged 11 deemed overweight or obese. Statistics suggest 33% of the population are inactivity in comparison to the national average

The premise of these statistics influenced the requirement for health intervention and as an intervention the BCiM aimed to introduce community sport and physical activity. This intervention was led by community volunteers, in eight hubs across four boroughs of the Black Country. According to the APS 6 data there is a deficit of 69,251 adults who fail to reach the national average of 1 x 30 minutes of physical activity a week within the Black Country area (APS, 2013). The four boroughs targeted within this intervention are Dudley, Sandwell and Tipton, Walsall and Wolverhampton East. Within which statistics suggest health inequalities are significant with approximately 500,000 adults being inactive (0x30mins) and classified as overweight or obese (Dudley 27.8%, Sandwell and Tipton 25.4%, Walsall 30.4% and Wolverhampton 28.5%). Activities were delivered by volunteers, and the purpose of this was to enable and facilitate participants to then volunteer within their own communities. The activities that were delivered were aimed to increase physical activity and sporting opportunities in areas of high socioeconomic inequality. (Full outline of project targets can be found in Chapter 4; Box 4.1)

The *Get Healthy, Get Active* intervention is one of many community sport interventions aimed at increasing physical activity in areas of high inactivity. This initiative is underpinned by survey data from the Active Peoples Survey and an insight report developed by the Black Country BeActive partnership (2014). It is inherently common within these areas for such interventions to take place, in a bid to tackle sedentary

behaviours, reduce the risk of disease and prevent further strain on the National Health Service.

Section III

1.6 – Thesis Structure

This thesis is an evaluation of the Black Country in Motion programme. This evaluation primarily identifies; the effectiveness of the intervention and processes that have facilitated behaviour change in physically inactive participants, and the impact and experiences of the community volunteers

Chapter 2 presents a review of literature that explores the evaluation of physical activity interventions aimed at changing the behaviour of its participants. Although simplistic in definition this evaluation provides a multiple dimensional analysis to identify the effectiveness of this intervention. This thesis primarily investigates the impact of the BCiM intervention upon facilitating activity behaviour change, in areas prolifically known for inactivity. To better understand and to identify current literature relating to transitions of behaviour change and motivation theory, this thesis aims to outline relevant contemporary research pertaining to such evaluations of community sport intervention. Developing the understanding of the intervention further, examination of community volunteerism and social capital literature will be explored. Therefore the literature review will specifically explore the following areas of interest;

- The mutable evaluation of community sport intervention
- Research exploring behaviour change intervention
- The distinct and emergent role of the community volunteer

1.6.1 Chapter 2 - An Introduction to the Literature

1.6.1.1 Community based intervention

An ever increasing body of evidence demonstrates the effectiveness of physical activity and exercise in the prevention and treatment of non-communicable disease. Despite this evidence, sedentary behaviour and inactivity related diseases continue to increase (Muller-Riemenschneider, *et al*, 2008). Regardless of the prevalence of initiatives to promote and encourage activity, such as *Change for Life, Get Active to get Healthy; Start Active; Stay Active*; and these initiatives appear to fail to achieve relevant outcomes.

Community based intervention, in which community is centric to delivery, is not a new occurrence. Sport and physical activity intervention has been the premise of sport development in communities for the previous 30 years to either tackle inactivity or promote social cohesion and inclusion (Coalter, 2005, Hylton and Totten, 2013). There are many approaches to community based intervention to increase activity, an example of which is exercise referral. The underpinning ideal to this is 'exercise as medicine' and offers an individual primary care support in a tailored programme of activity or sport. Exercise referral provides access to facilities that assist with short term increases in exercise, however this does not appear to sustain exercise adherence (Beedie, Mann and Jimenez, 2014). Extant literature from research undertaken by Sport England suggest an approach to exercise deliver within community provision is best delivered by '*someone like me*' (Cradle to the Grave impact report; 2013 https://www.activeblackcountry.co.uk/upload/files/NewFolder/Black%20Country%20Cradle%20to%20the%20Grave%20Adult%20FINAL.pdf)

1.6.1.2 An Introduction to Behaviour Change

Understanding the effectiveness of a physical activity intervention can be seen in a change of participant behaviour (Chatzisarantis and Hagger, 2009; Kwan and Bryan, 2009, Bui, Mullan and MaCaffery, 2013). To measure the effectiveness of the BCiM, this thesis explored the processes of participant change, from physically inactive and somewhat sedentary, to that of an active and exercise engaged participant. Contextualising their transition from inactive to active, Chapter 2 will explore the literature relating to effective behaviour change measures and research using behaviour change models.

Drawing on the systematic review of physical activity interventions conducted by Kahn, Ramsey, Brownson, Heath, Howze, Powell, Stone, Rajab and Corso (2002), it is identified that frameworks for intervention are primarily divided between three areas: those that provide information, those that use behaviour skills and social support and those with a foci on environmental and policy changes. As the basis of the BCiM is a community-led intervention, the processes of behaviour change and social supported activity has been the premise for this exploration of behaviour change.

A plethora of literature exploring the engagement and adherence to exercise and physical activity has essentially linked this activity to motivation. However the concept of motivation is somewhat polysemic and can prove difficult to define due to its inability to be directly observed (Lapointe and Perreault, 2013). Predominant theories exploring exercise motivation suggest that motivation can initiate behavioural and therefore direct an individual towards a specific behaviour and influence persistent behaviours (Ryan and Deci, 2000). According to Ekkekakis (2009), engagement in exercise and physical activity is primarily based upon cognitive factors such as the pros and cons

to partaking; appraisal of personal capabilities, self-efficacy and evaluating sources of support. However Hagger and Chatzisarantis (2007) proposed the engagement and increase of physical activity and exercise in sedentary adults often presents difficulties and distinct challenges. Therefore it is evident to suggest that understanding the motivations which initiate behaviours is essential for a comprehensive understanding of exercise behaviours; and more specifically with social groups associated with sedentary lifestyles. In essence, motivation is the foundation to why individuals initiate behaviours, their engagement in behaviour and subsequent outcomes and achievements (Deci and Ryan, 2000). Literature exploring motivation is a fundamentally established component with the sport and physical activity domain, thus emphasising its relevance to the development of life and health behaviour change.

It is through the examination of socio-cognitive models that behaviour change can be predicted through hypothesis or measured using specific variables such as self-efficacy, intention and expectation to name a few. When exploring motivations for sedentary and / or physical activity behaviours socio-cognitive models provide a framework that specifies psychological and social factors used to determine health behaviours (Bui, *et al,* 2013). Enabling an understanding of socio-cognitions in an individual's behaviour may determine motivations for behaviour change, specifically for those at risk of health inequalities (Tavares, Plotnikoff and Loucaides, 2009). It is proposed that the testing hypothesized theoretical models enables further understanding of health behaviours by examining how proposed factors interrelate to explain and at time predict patterns of behaviour within health (Dewar, Plotnikoff, Morgan, Okely, Costigan and Lubans, 2013).

The TTM is essentially used as a socio-cognitive model for behaviour, enabling the identification of the process for behaviour change (Velicer, Prochaska, Fava, Norman and Redding, 1998). Conceptualising this model, its application has been prolific in varying contexts of health and cessation and its multi-dimensional design identifies the facets and process of change and self-efficacy (Bridle, Riemsma, Pattenden, Sowden, Mather, Watt and Walker, 2005). Essentially the TTM provides a framework for understanding when people are ready for life change (stages of change), strategies which enable modification of behaviour, cognitions and emotions (process), benefits and barriers to change (decisional balance) and beliefs subsequent to behaviour (self-efficacy) (Finnel, 2005). Evidence suggests self-efficacy is related to maintaining and sustaining physical activity and exercise (Melton, Marshall, Bland, Schmidt and Guion, 2013). Drawing on these notions of self-efficacy, exercise self-efficacy is thought to significantly influence continuing physical activity behaviour (Jenum, Lorentzen and Ommundsen, 2008). At its premise self-efficacy derives from socio-cognitive theory (Wright, Velicer and Prochaska, 2009), which identifies that behaviour change is made possible through an individual's sense of control with greater focus on exercise adherence. Although deductive in nature, Prochaska and Di Clemente's TTM enables further inductive analysis through the emergence of additional exploration (Finnell, 2005). The TTM framework provides a premise in which developing stages of change, strategies to enable behaviour modification, the pros and cons to behaviour adherence and self-efficacy can be further identified (Prochaska and Velicer, 1997). Fundamentally, the multifactorial determinants of behaviour change in physical activity are underpinned in theories and models hypothesising that socio-psychological factors such as efficacy, identity and control beliefs mediate such behaviour (Jenum, Lorentzen and Ommundsen, 2008).

With emphasis within this study being that of behaviour change, the foci of transitions and lifestyle changes will be developed with specific emphasis upon the transtheoretical model (Bridle, Reimsma, Pattenden, Sowden, Mather, Watt and Walker, 2005). Contextualising the TTM further, identification of decisional balance to maintain exercise, the individual's attitude towards physical activity and development of participant efficacy will enable this study to identify such multifactorial transitions.

Literature exploring behaviour change within a multi-health research discipline highlights a symbiotic relationship between behaviour change and motivation (Deci and Ryan, 1985; Pfeffer, 2013; Chang, Choi, Kim and Song, 2014). The premise of which is dependent upon the degree of motivation an individual exhibits, and is thus reflective of the extent to which the behaviour is autonomous or controlled (Ryan and Deci, 2000). Developing this further Deci and Ryan (2005) goes on to identify the principle motivations which initiate behaviour change, the engagement in behaviours and the subsequent results achieved. However, contextualising the work of Bui, Mullan and McCaffery (2013), the socio-cognitive models of health behaviours emphasises the developmental importance of cognitive health related decision making, identifying fundamental influences and motivations for behaviour such as partaking in physical activity.

Although subject to some criticism relating to effectiveness of this behaviour change theory and such intervention (Adams and White, 2003; Bridle, *et al*, 2005; Hutchison, Breckon and Johnston, 2008), the TTM is a well exercised model, predominantly focusing on the stages and processes of change (Nigg, 2005). Furthermore, drawing on the work of Plotnikoff, Brez and Hotz (2000) behaviour change in such context is

subsequently dependent upon social and economic influence and external support. Thus for the purpose of this study the TTM enabled the researcher to capture behavioural transitions, process of change, decisional balance and self-efficacy within their experiences of the BCiM project.

1.6.1.3 An Introduction to Volunteerism literature

Fundamental to the BCiM is the implementation and facilitation of community sport using community volunteers. Extant literature within social action and leisure activity has developed the notions of volunteering as a social phenomenon (Nichols, 2013; Doherty, 2006). According to Rochester and Hutchison (2002) volunteering is becoming an increasingly common social action in which the philanthropic volunteer is becoming an essential part of a cohesive community. Volunteering in its simplistic description is in essence the voluntary act of an individual or a group positioned towards social or community development (Van Til, 1988). As a growing milieu of study, volunteerism has been identified as contributing to the increase of personal development, addressing social cohesion and social requirements (Charlesworth, 2012) and has become a fundamental element to the community sports sector (Adams & Deane, 2005).

Traditional notions of volunteering are specifically affiliated to that of non-profit, altruistic and philanthropic action (Rochester, 2006) and it is this paradigm of volunteerism which provides the social phenomenon, altruistic perspective. Contrasting to such notions of altruism, an alternative paradigm has been developed specifically pertaining to the civil society paradigm which is somewhat instrumental in nature (Rochester, 2006). Such instrumental paradigm finds motivation in those who engage in this type of volunteering and is entrenched in self-development and/or

mutual collective gain. Changing societies have influenced perspectives on the nature of volunteering, essentially resulting in a shift from the traditional perspectives of philanthropic non-profit voluntary action to that of civil society action (Rochester, Ellis-Paine & Howlett, 2012). It is with this paradigm shift that the voluntary sector has increasingly began to provide a supplement to public provision and delivering social policy (Morgan, 2013, Such, 2011). Further shifts in volunteering paradigms are found in the somewhat juxtaposing leisure paradigm which removes itself from the seriousness of philanthropy and civil responsibility and leans increasingly towards volunteerism as a hobby (Rochester, *et al*, 2012).

Community sport in England relies significantly on volunteers for its delivery (Taylor, Panagouleas and Nichols, 2012). Equating to a large proportion of voluntary action within the United Kingdom, volunteering in sport and community sports equates to a quarter of all volunteering (Nichols, 2006), however there are varying statistic regarding volunteers in sport dependant on source. For example the Active Peoples Survey suggests a national average of 11.3% (Sport England, 2010), whereas 13.4% suggested by the Citizenship Survey (Home Office, 2009). While there are varying statistics when exploring volunteering in UK sport, such surveys are not comparable as methods, sample sizes, survey administration and questionnaires differ (Nichols, 2005).

Akin to other voluntary action, volunteering in sport is defined as non-profit (formally and informally), and established to provide members with opportunities to partake in sports and/or physical activity (Taylor, *et al*, 2013). Formal voluntary sport organisations are predominantly affiliated to provincial national governing bodies (NGB's). Whereas informal volunteering in sport and/or physical activity is somewhat

independently structured (Shibli, Nichols, Taylor, Gratton and Kokolakakis, 1999). However Cuskelly, Hoye and Auld (2006) suggest that '*volunteer involvement in sport cannot be disaggregated accurately by type of organisation'* (p.16).

Whilst there are significant dis-similarities associated to volunteering statistics, comparable findings in sport volunteering demographics and motivation suggest engagement in harder to reach communities is challenging in itself (Scott, 2011; Blackshaw and Long, 2005; Eley and Kirk, 2002). Pertaining to national research conducted by Sport England (2009) the age of the sport volunteer varies however it highlights volunteers are most likely to be of white ethnicity. Furthermore those who are economically inactive are least likely to volunteer (Chang, Fang, Ling and Tsai, 2011) however studies show students and those who are in the four highest socio-economic classes are increasingly likely to volunteer (Nichols, 2013; Eley and Kirk, 2002). Developing this further Taylor, *et al*, (2012) and Scott (2011) suggest that during times of recession and social austerity, sport and community volunteering experience a downward trend, thus reducing. However the importance of the voluntary sector is evidential, with suggestions of this sector alone contributing £22.7 billion to the economy on a yearly basis (The Institute of Volunteering Research, 2014). Contrary to this Nichols and King (1998) draws a distinction between the economic 'value' and socio-cultural 'value' of the voluntary sector, in doing so highlights the unaccountability of the voluntary sector in providing a service compared to that of a paid service.

In accordance with sport development, capital acquisition discourse and pertaining to Bourdieusian concept of capital, volunteering is affiliated to the acquisition of social capital (Coalter, 2010). This phenomenon has subsequently influenced both psycho-

sociological study and social policy research. It was through Putnam's (1995; 2000) interpretation and adaptation of Bourdieu's capital, that social capital has become a concept in which an individual can develop via social networks within different habitus (Evers, 2003). The premises of modern social capital are essentially community centric and are thus somewhat contradictory of the individualistic origins of capital acquisition. Fundamental to Putnam's adaptation is defined between bridging and bonding capitals primarily concentrating on community's ability to develop social cohesion (Harvey, Levesque and Donnelly, 2007). Harvey, *et al*, (2007) suggest it is primarily this adaptation which introduced the idea of volunteerism in sport as a contribution to the development of social capital of lower socioeconomic communities and social cohesion. Furthermore it is the vessel of sport which has provided the premise for the development of social networks and the evolution of a multitude of social relationships (Wellman, Wong, Tindall and Nazer, 1997). Developing this network based approach to social capital the dynamics, formation and development of such social networks have additionally developed modes for social mobility (Walseth, 2007).

Given the psycho-sociological 'prosocial' discourse associated with volunteering within any volunteering context, considerable curiosity in understanding volunteering profiles and motivations have provided an increasingly growing premise for volunteerism research (Wilson, 2012). With prevalent research conducted by Clary, Snyder and Stukas and colleagues (1996; 1998; 1999; 2002; 2008; 2009) within volunteering and social/community involvement; motives for civic engagement and prosocial volunteering have been the basis for examination. To provide further understanding of volunteering and volunteerism, it is necessary to conceptualise motivation. Literature exploring social-psychology in volunteering have developed the

varying benefits associated to voluntary action, dominant discourse being that of enjoyment, good physical and mental health and wellbeing. Volunteering motivation has been a foci aimed at understanding the influencing factors of engagement and retention (Cuskelly, Hoyle and Auld, 2006). Aside to the principle intrinsic and extrinsic (altruistic and instrumental) motivations within volunteerism literature, assumptions around satisfaction and retention are fundamental. According to Clary, Snyder and Stukas (1996), volunteer motivations are an intrinsic psychological force, enabling people to overcome obstacles to become involved in volunteering activities. As determined in Clary, ***et al's*** (1996) somewhat functional approach to volunteering motivations, motives fall into the following categories:

- *values* - pertaining to the expression of altruism;
- *understanding* - what is required as a skill set in that domain;
- *career* – experiences for career related skills;
- *protective* – escapes negative feelings
- *Enhancement* – volunteering for personal development and self-esteem (p.123).

As stated by Taylor *et al*, (2012) '*volunteers are central to the sport policy context in the United Kingdom'* (p. 201), with significant national investment in voluntary sport. Furthermore a third of £307 billion of government funding in 2002 allocated to the voluntary sector (Taylor, *et al*, 2007). Developed further Nichols, Taylor, Garrett, Holmes, King, Gratton and Kokolakakis (2004), highlight the importance of volunteering to the government as a means of social cohesion and active citizenship, developing sports for young people and children and the promotion of sports participation to increase health inequalities. It is with this in mind that a brief exploration into sport and social policy regarding volunteerism will be developed in Chapter 2 with the intention of using literature to explore the impact this has upon the community sport volunteer.

1.6.2 Chapter 3 and 4 Methodology and Methods

Chapter 3 explores the methodological approach and research philosophies used in the evaluation of this project. As this project was part of a national initiative, pre-determined methods and outcomes were required to ensure a standardised evaluation. Therefore this research used mixed methods framework to collate and analyse data. Having identified the use of a pragmatic research approach to evaluate the BCiM project, this chapter further explores the implications of this paradigm and develops the research framework.

Chapter 4 provides a detailed outline for the research aims and objectives, providing a framework identifying the methods used to collect the data, the areas in which the project was delivered, the recruitment of research participants and the socio-demographics of those engaged in the BCiM project.

1.6.3 Chapter 5 Results - IPAQ and Processes of Behaviour Change

Chapter 5 presents the results from the evaluation of the BCiM, focusing on the outcomes of the intervention. As this research was a mixed methods study Chapter 5 will be divided into 3 sections. Section I will examine the results of quantitative data, in which IPAQ, demographics and attendance registers will be discussed. Drawing on qualitative data gathered by participants who had registered with the BCiM, Section II will identify the processes of change from participants. With the application of the TTM framework, this section aims to explore the processes of change and psychosocial variables that impact the adherence or disengagement of BCiM participants. Section III will examine case studies from the physical activity sessions facilitated by the BCiM. The premise of this was to identify the strengths, challenges and limitations through the examination of participant and volunteer stories. Fundamental to this section is the

narratives of those who transitioned from physically inactive and then on to become a BCiM volunteer.

1.6.4 Chapter 6 Results - Process Evaluation

Chapter 6 focuses upon the delivery of the intervention and process evaluation. This chapter examines the efficacy, effectiveness and impact of the intervention, in its ability of achieve the project outcomes. With the application of a process evaluation framework, this chapter examines this interventions ability to achieve its outcomes. This process evaluation examines project recruitment, reach, retention, implementation, fidelity, delivery and maintenance. Further examination was undertaken exploring the evaluation process applied in this national programme.

1.6.5 Chapter 7 Results - Volunteerism and the Community Physical Activity Volunteer

This chapter (Chapter 7) focuses on volunteerism and the community volunteer. Examining the effectiveness of the BCiM in increasing social capital and examining the impact of the community volunteer in facilitating exercise provision. Examining the narratives of volunteers, this chapter draws on qualitative data in which the researcher identifies the volunteering processes.

1.6.6 Chapter 8 - Research Discussion and Conclusion

Chapters 8 presents the outcome of the evaluation, drawing on the findings from both quantitative and qualitative data and in relation to current and relevant literature. Additionally in Chapter 8, conclusion of the project is developed and drawing on extant literature, a comparison with this study is developed. Within the conclusion, the

researcher was able to outline the strengths and limitations of the research and implications for future evaluative research.

The following chapter (Chapter 2), is a review of literature, exploring community based intervention, the Transtheoretical Model for behaviour change and voluntary action in a community sport setting and volunteerism.

Chapter 2 - Literature Review

2.1 Overview and Introduction

This chapter explores current literature in the milieu of behaviour change intervention, tackling inactivity and volunteerism in community sport and exercise. The chapter will be divided into sections which will provide a theoretical overview and a review of literature for each area explored. Section I will examine the community intervention aimed to increase physical activity in areas of socioeconomic inequality. Section II will identify the behaviour change models used in such community initiatives and their subsequent application to community intervention. Section III will explore volunteerism and the community, physical activity and / or sports volunteer.

The aim of this chapter is to examine literature synonymous with community led physical activity intervention, exploring themes that have been highlighted in the funding bodies monitoring and evaluation processes (see appendices: Appendix 1). Drawing upon a diverse spectrum of literature from measuring the efficacy and effectiveness of community intervention, examining scientific lead measures of behaviour change to developing theoretical concepts of community and volunteerism. Therefore the examination style of literature is somewhat pragmatic, in that Section I and II, reviewed objectively measured, quantitative literature therefore a scientific approach to review was applied. It could be suggested that this approach to examining community intervention stems from the need to quantify intervention effectiveness. Whereas Section III, the literature was qualitative in nature and thus a theoretically centric approach was adopted.

The diversity of literature examined is reflective of the holistic approach now taken in community physical activity and sport intervention. Strategies for community

intervention within this field have shifted from the focus of primarily sport participation, to that of mass participation to improve health and society (Coalter, 2009). This has incorporating a multi-holistic approach aimed to tackle a number of issues from tackling mental health illness to the development of social cohesion and tackling anti-social behaviour (Hylton, 2015).

Section I of this chapter describes the challenges faced when attempting to increasing activity in areas of socioeconomic disadvantage, and subsequently intervention approaches to tackling inactivity. The review will focus on the evidence relating to the effectiveness of the interventions. The interventions studied sought to identify processes of behaviour change, exercise motivation and social variables which support exercise adherence. Therefore academic literature exploring this was reviewed and models of behaviour change explored. Additionally examining volunteerism and the community volunteer as activity was essentially delivered by volunteers and community members, thus literature identifying the impact of volunteerism within community intervention is additionally explored.

The aim of the literature review is to review the relevant literature and as part of this process, it focuses on recent systematic reviews in the areas described previously. Where systematic reviews were not available, it was the intention of the researcher to identify the most appropriate evidence through longitudinal studies to explore the effectiveness of interventions. The purpose of this approach was due to the diversity of subject areas and the vast amount of research literature within these areas of study.

Section I - Community Physical Activity Intervention

2.2 Overview

A physical activity intervention is a systematically planned and applied, set of actions aimed to deliver a specifically designed activity to a targeted group of participants (Marcus and Forsyth, 2009). Community interventions are commonly based upon behavioural theory with the ultimate goal being to motivate and assist the participant to maintain an active lifestyle. Community activity intervention and sport development is not new to the world of public health (Coalter, 2005). In the current climate, with significant numbers of the population remaining inactive, initiatives aimed at tackling inactivity, through community initiatives are more prevalent. Physical activity was chosen as a measure of exposure to which an increase can occur and thus benefit health and wellbeing.

The definition of the term community in this guise, often refers to an administrative or geographical boundary, such as a place of residence, forming a common effective union or as a social network or collective that are open to varying populations (e.g. community centres, churches). Although rhetoric of community is inherent within public health and sport policy and the notion of community as theorised by scholars has been reflective of an othodox sociological concept. As an immeasurable concept, community has been used as a premise for social development and cohesion (Coalter, 2008). However, the notion of community has been subject to sociological critique (see section 2.20 for a development of this critique).

When examining community and physical activity intervention, the evaluation of community intervention has posed a challenge (as discussed in Chapter 1). Measuring impact and the effectiveness of an intervention, within a real world setting differ from

those conducted under strict controlled environments (Green, 2001). In contrast, when examining community intervention, this form of initiative often differs from clinical or occupational interventions, as there are significant differences in participant motivations, intentions and social constructs (See section 2.11).

Bull, Armstrong, Dixon, Ham, Neiman and Pratt (2002), explore literature pertaining to physical inactivity and its effects on health. A comprehensive literature search of key agencies explored 50 datasets on physical inactivity, covering 43 countries, using adult populations. From the datasets identified, only 21 met Bull *et al*'s inclusion criteria. This review was done by drawing on sources which used a range of survey tools and methodologies for the collection, analysis and reporting of data on physical activity studies. A linear regression was used to identify two levels of exposure to exercise; 1) those who were inactive and 2) those whose activity was insufficient. This regression was additionally used to predict occupational activity and transport related activity. Through this analysis it was discovered an estimate of global inactivity was 17.1%, ranging from 10.3% to 24.8%. The final global estimate for insufficient activity was 40.6% and ranged from 31.7% to 51.5% (p.730). Bull, *et al*, develop the effects of inactivity up on ischaemic heart disease and stroke, diabetes and breast and colon cancers. They suggest physical inactivity accounts for 3.3% of deaths worldwide.

On a more micro level, a meta-analysis conducted by Dishman and Buckworth (1996) reviewed 127 interventions within communities, worksites, schools, homes and health-care settings. Findings revealed that throughout each setting, interventions had a moderate effect on behaviour and adherence rates increased from about 50% to 70-88%. Effective interventions were those who included behavioural modification techniques rather than health education, exercise prescription or physical education

strategies. Factors that were associated with a large effect size were interventions that were; delivered via mail or telephone as opposed to delivered face to face, interventions that included active leisure activities, non-supervised activities and targeted low intensity exercise. Following this meta-analysis, Dishman and Buckworth suggest physical activity interventions should target ethnic minorities, those residing in areas of socioeconomic disadvantage and older adults was warranted. Further suggestions included examining the cognitive behavioural strategies and processes of behaviour change in interventions as opposed to the less effective strategies to guide intervention design.

2.3 Tackling Inactivity through Community Intervention

In reference to Public Health England's guidelines the optimal amount of physical activity per week is 150 minutes, however in areas of socioeconomic inequality, physical inactivity is somewhat endemic (Johnston, Matterson and Finegood, 2014). Those who are socioeconomically advantaged are increasingly more likely to engage in the recommended levels of physical activity than those who are less advantaged. Identifying the social determinants of health in areas of low socio-economic inequalities, Carey and Crammond (2015), examine health reports using 6 primary national reports on social determinants of health. Identifying changes in policy over time, Carey and Crammond highlighted a shift towards pragmatic change and away from individual interventions. Thus suggesting that the effectiveness of an intervention comes from how it works to create change rather than where it is targeted.

Martin, Fitzsimons, Jepson, Saunders, Van der Ploeg, Teixeira, Gray and Mutrie (2015) undertook a systematic review and meta-analysis of interventions aimed to reduce sedentary behaviours. 51 studies (randomised controlled trial study designs),

met the inclusion criteria which identified interventions based on reducing sedentary behaviour or increasing physical activity. Populations for this review and meta-analysis included adults aged >18 years and above, mixed gender and ethnicity. Interventions took place in either communities or workplaces. The intervention durations varied from <3 months to 3 years and follow up data collection was collected at baseline to >12 months. Varying assessment tools such as self-reporting measures and accelerometers were used to determine activity.

To identify effectiveness Martin, *et al*, explore the primary and secondary outcomes of each intervention. Primary outcomes were reported as overall time spent sedentary mins/day (*n=49*), percentage of assessed time (*n=3*), number of sitting breaks (*n=3*) and number of prolonged sitting periods (*n=3*). 20 studies indicated intervention effectiveness, of which 10 interventions had adopted lifestyle intervention approaches, 6 studies targeted increases in physical activity, 2 combined physical activity and sedentary behaviour and 2 studies targeted sedentary behaviour intervention. The results of this review reported that 2 studies identified beneficial intervention effects in favour of the control group, of which both of these interventions were physical activity projects. 24 projects reported no evidence of group difference in sedentary behaviour (10 lifestyle interventions, 7 physical activity interventions, 6 interventions combining physical activity and reducing sedentary behaviour and 1 dietary intervention).

Martin, *et al*, undertook a meta-analysis of 34 of the 51 studies, which identified a reduction in sedentary periods, thus suggesting effectiveness of intervention (*n=5868*, 95% reduction in sedentary behaviour -35 to -9 mins/day). Life interventions aimed at changing behaviours reported sedentary behaviour as 24min/day (*n= 3981*, 95% -41 to -8 min/day). Interventions which focussed primarily on reducing sedentary

behaviour highlighted sedentary behaviour at 42 min/day (n=62, 95% -41 to -8 min/day). However there was no evidence to suggest the effectiveness of physical activity intervention on the reduction of sedentary periods. The findings from this review and analysis reported interventions targeting sedentary behaviour and lifestyle interventions are able to reduce sedentary behaviour in adults. It was highlighted that interventions that target increases in physical activity or combine increases in physical activity with reducing sedentary behaviour failed to reduce sedentary periods. Heterogeneity between studies was used to partly explain the differences between studies, however further work is required to identify the successful 'ingredients' to explore the differences between the differing approaches.

Ball, Carver, Downing, Jackson and O'Rourke (2015) conducted a systematic review of literature that addresses research exploring the social determinants to inequalities in physical activity. The review focused primarily on discretionary physical activity (leisure time activity) and transport related physical activity (walking/cycling). The premise of the review was to identify research evidencing the social distribution of associated health outcomes of physical activity and tackling sedentary behaviours. The analysis of 90 research studies highlighted the majority of studies foci on the approaches targeting behaviour change at an individual level, with few focussing on broader socio-economic issues. When exploring the literature through an equity lens, it was suggested that there were differential effects across social groups.

Ball, *et al*, divide the literature searched into varying contexts to identify means to address the social determinants of physical activity and sedentary behaviour. Approaches explored in this review of literature were; governance and partnership, community wide, economic instruments and transportation practices. These

approaches were based in community, early years, social support group, work place, and healthcare and schools settings. A fundamental development in this review was the lack of evidence of the differential impact of the physical activity interventions across the social groups explored. Furthermore further studies are required to identify effective approaches to reducing sedentary behaviour. Following this review, Ball, *et al* offer recommendations for future interventions in a socio-economic, political and cultural contexts. These recommendations include multicomponent, appropriately designed community initiatives, to potentially address and impact diverse populations and further support of organisations facilitating interventions in socio-economically disadvantaged communities. Additional recommendations were given to accessibility to physical activity opportunities, investment in early years intervention, individual level approaches to promoting physical activity to include cognitive-behavioural and motivational design and tailored, culturally-sensitive prompts in social settings that attract or motivate activity.

Craike, Wiesner, Hilland and Bengoechea (2018) provide a review of systematic review of literature exploring interventions aimed to improve activity amongst the socioeconomically disadvantaged. Systematic reviews of universal interventions in populations of low socioeconomic status were explored (excluding populations characterised by chronic disease). In this review Craike, *et al*, identify three areas of community intervention studies; i) the effectiveness of interventions amongst socioeconomically disadvantaged groups, ii) the characteristics of effective interventions and iii) direction for future research. From the 42 reviews explored 17 met the inclusion criteria, only 5 were assessed as high quality, robust research. Seven interventions focused on obesity prevention and an additional 4 focused on behavioural outcomes. The target groups of the interventions were pre-school children

and families, school based interventions and adult residing in socioeconomic disadvantaged communities. Their findings highlighted that evidence of intervention effectiveness, through longer term outcomes were seldom reported. Socially supported and group based physical activity, delivered by professionals was additionally successful in increasing physical activity.

Systematically reviewing community based interventions to promote physical activity, Bock, Jarczok and Litaker (2014) explore the mode of delivery, quality of study and population subgroups. Following the analysis of articles published in medical, psychological and sociological journals, a review of 55 research studies (consisting of *n=37* RCT and *n=18* quasi-experimental studies) was undertaken. The 55 interventions studied in this review, examined literature published between 2001 and 2012 and included international research. The effectiveness of these community based physical activity was explored through sub-group comparisons for modes of delivery, selected population characteristics and the quality of the study. Pooling a total of data, this review presents data from 20,532 participants, sample size ranged from 31 to 3114 (median: 154), mean age of 50.1 years and 66.9% female participants, 64.5% Caucasian of varying socio-economic populations.

Intervention recruitment strategies varied, most interventions (*n=50*) adopted traditional modes of recruitment such as advertisement, word of mouth and community centres. The modes of delivery varied, 10 studies were exercise or walking sessions, 8 were face to face counselling sessions, 6 were public campaigns, 5 mail and 2 telephone mediated interventions. 19 studies were multicomponent and incorporated more than one mode of delivery. Duration of interventions ranged from single contact to five years, the majority of studies undertook multiple points of follow up with

participants (median length: baseline data to 3 years). This systematic review supports the effectiveness of community based intervention to increase physical activity, suggesting that tailored interventions appeared to be most successful in increasing physical activity. However targeted interventions within community settings seem to be effective in terms of short term effects, as long term follow ups were unreported thus limiting clear conclusions on sustained effectiveness. Bock, *et al,* review suggest community based physical activity intervention appears to be effective in promoting physical activity. However they go on to suggest that this approach could be potentially undesirable as it characteristics often depict a 'one size fits all' approach. Considerations into follow up data collection, incorporating appropriate measures and multiple preferences to delivery would attract varying socio-demographic groups to increase activity.

In a longitudinal study exploring community based physical activity intervention Haggis, Sims-Gould, Winters, Gutteridge and McKay (2013) examine the impact of a school based intervention in effectively increasing physical activity. A critical evaluation of 2 large programmes were examined, the programmes aimed to promote physical activity in a school environment, promoting community and neighbourhoods as a conducive environment for exercise. This evaluation identified the steps taken to develop and implement the research programmes through the development of case studies. This study aimed to identify the programmes successes and limitations through a comparison of the projects process evaluation and findings from literature explored.

The findings from this evaluation highlighted the following themes; Social ecological approach, participatory action research approach, interdisciplinary teams. Haggis, *et*

al, suggest that interventions that apply a social ecological framework, identify multiple targets for change due to its use of networking relationships. These relationships rely upon partnerships across sectors and have a multiple impact due to this. It is further suggested that participatory action research approach is beneficial to mobilising community partnerships, ensuring opportunity for communities to engage in appropriate provision. This framework was conducive to empowering communities, enabling them to identify the 'problem' to address, as opposed to a top down approach. The convening of interdisciplinary teams is a further strand deemed essential for the successful and sustained impact of community health intervention. As this element is underpinned in the merging of practitioners, stakeholders, communities and researchers to ensure success. With these notions explored, Haggis, *et al*, further evaluate the community based interventions aimed to increase physical activity as discussed. The first initiative evaluated was a school based, community intervention which had successfully reached 1,455 schools and had subsequently reached 400,000 children. Upon analysis of this intervention, it was highlighted that the three approaches discussed enable success through ongoing engagement with participants in this initiative. The second initiative evaluated aimed to develop communities as environments conducive for physical activity engagement in a walkability programme. 193 older adults were recruited from the communities targeted for this intervention. However it was suggested that there were challenges faced in tackling inactivity in these communities. Haggis, *et al,* suggest there is no single solution to sedentary behaviour or influences to the engagement in physical activity. It is further suggested that the successes identified were the 'interplay between social, environmental and political systems' (p.6) that influence interventions. In conclusion, it is argued by

Haggis, *et al*, that the involvement of an engaged community and interdisciplinary team invoke the change that is required to contribute to sustainable provision.

Developing community intervention further, Roux, Pratt, Tengs, Yore, Yanagawa, Van den Bos, Rutt, Brownson, Powell, Heath, Kohl, Teutsch, Cawley, Lee, West and Buchner (2008) research the cost effectiveness of 7 public health, community based physical activity interventions, using a QALY (money per quality-adjusted life year) framework. The objective of this review was identify if health improvement can be gained when an intervention is compared with an alternative, incorporating cost effectiveness. These 7 interventions aimed to increase physical activity in adults stratified by age, gender and physical activity. The interventions explored exemplified four strategies used in such public health interventions, these were; community-wide campaigns, individually targeted behaviour change, community social-support interventions and educational/ information intervention. These interventions were compared to a non-intervention alternatives. Using data gathered from these interventions, a population of adults (*n=100,000*), aged 25-64 of mixed ethnicity and employment, physical activity was measured using MET-minutes per week. This data identified that 25% of this population was inactive. Following intervention it was hypothesised that the probability of this population changing from inactive to irregularly active was estimated as 0.25% the following year. The impact of interventions were assumed to decline once the interventions had ended, however this was impeded due to limitations in follow up data collection. It was hypothesised from that there would be a 50% decline in physical activity following 2 years of intervention. This evaluation highlights that the interventions explored were cost effective within the four targeted

strategies examined. However it is suggested that cost effective analysis has experienced criticism due to the use of utility values.

Armour, Sandford and Duncombe (2011) evaluate 2 community interventions in a longitudinal study to identify the central features which enable a sustainable provision. This paper aims to identify sustainability in physical activity and sport interventions targeted at young, disaffected adults in areas of high socio-economic disadvantage. Between the years 2003 and 2007 *n=10,000* participants registered with the programmes, impact data was collected from 50% of one intervention (*n=4700*) and 90% of the second intervention (*n=540*). Participants were young adults of school age (11-17), of mixed ethnicities and low socioeconomic status. The evaluation framework included individual profiling, case studies and the creation of programme logic models and analysis used mixed methods. Combining the data from both programmes, the sustainability of impact was used to identify common themes. Data reported that six primary features should be embedded in the design of community based physical activity programmes. These features are as follows; matching specific needs for the community with programme objectives; locating project activities outside of 'normal' provision; working closely with participants to choose activities; set targets and review progress; mentoring programmes in which participants have opportunity to work with other groups; enabling structured pathways to ensure sustained involvement in the future projects or complementary provision. Insight from these studies suggests that combining these features can lead to a positive impact from physical activity and sport interventions in this demographic population.

Casey, Eime, Ball and Payne (2011) explore the characteristics of physical activity and inactivity from men residing in communities of low socioeconomic communities.

This study applied a socio-ecological model to explore the differing characteristics between participants. 25 men and 4 community health workers were interview and physical activity was self-reported at baseline. 14 men of this group were physically active whereas 11 were inactive; mean age m=45.4 (SD+9.6). As a qualitative study Casey, *et al*, conducted interviews and analysis used the socio-ecological model. Findings from this research identified the characteristics of those who were inactive reported poor health, financial barriers, limited social support, unsafe neighbourhoods and limited knowledge in the provision or facilities available in their community. Those who were active identified a positive outcome expectancy and an increased self-efficacy. It was reported that those who identified as being inactive in this study experienced adverse psychosocial factors, specifically associated to affordability and inclusive opportunities in their communities. Casey, *et al*, recommend that further health strategies that seek to tackle physical inactivity in such socio-economic communities, should consider the cumulative contextual life issues and an individual's capacity to engage.

2.4 Evaluating Real World, Community Interventions

The evaluation of real world, community intervention has created challenges in the sense that the foci of health promotion investigation has been conducted in mostly highly controlled conditions. Although such clinical studies have determined the benefits of specific health behaviours, testing interventions under highly controlled conditions is has limited application in real world settings. In a real world setting, physical activity intervention rarely specifically delivered to highly motivated, healthy participants and under ideal circumstances (Mann, 2014). Communities provide an ideal setting in which interventions are able to promote increases in physical activity due to the potential for reach in this context (Koorts and Gillison, 2015). However real

world research in community setting posed a challenge when evaluating project efficacy. Koorts and Gillison (2015) highlight such difficulties as; long-term adherence is difficult to identify therefore effectiveness can be inconclusive and limited assessment of uptake, delivery and process.

The community and environment are influential upon the opportunity to participate in physical activity (Wilkinson and Marmot, 2003). Examining the relative influence of the social and physical environment as determinants of physical activity, Giles-Corti and Donovan (2002a) suggests that environment and access to provision are conducive to engaging in physical activity. Evaluating a social ecological project, Giles-Corti and Donovan, examines survey data from 1803 adults (aged 18-59, residing in a metropolitan area). 59% of this population were sufficiently active, using facilities and provision informally. It was determined that the environment directly influenced activity however this was secondary to individual or social determinants. Giles-corti and Donovan, recommend contemporary strategies that are designed around social and environmental factors to increase activity in those who identified as inactive.

The effectiveness of interventions to increase physical activity were explored by Kahn, *et al* (2002) in which they reviewed the various approaches to increasing physical activity. The studies reviewed assessed the effectiveness of interventions which identified changes in physical activity behaviour and aerobic capacity. The studies in Kahn, *et al*'s, review included a multitude of behavioural risk intervention including smoking, poor diet and physical inactivity. 6 articles were reviewed and it was highlighted that the effectiveness of these interventions were at times estimated due to the limitations of the reporting measures and the intervention approach. The outcome of this review highlighted the following approaches as effective when

implementing behaviour change interventions. It was suggested by Kahn, *et al*, that informational approaches to interventions (where participants received information to motivate and enable behaviour change), were effective. Focus on cognitive skills in the delivery of intervention was additionally seen as advantageous when aiming to encourage healthy behaviour change. Further identified by Kahn, *et al*, was point-of-decision prompts within a community setting. Point-of-decision prompts are signs designed to encourage members of the community to use the stairs as opposed to escalators or lifts. Such signs are effective by reminding people to become more active and to increase awareness of such health benefits. A collective examination of findings highlighted that median rates of stair use increased by 53.9%.

An additional strand of this review was an exploration of community-wide campaigns, in which multi intervention approaches to increase physical activity was examined. Communication techniques for these campaigns were delivered via diverse media methods and community intervention was a combination of social groups, education about the importance of physical activity and environmental changes. 10 reports on the effectiveness of community intervention were examined, highlighting a median increase of 4.2% increase in the physical activity of those who partook in such interventions. However it was suggested the implementation and coordination of an intervention is essential in its effectiveness. Kahn, *et al* additionally suggests consideration in the delivery of activity, with staff training, activity delivery and resources being essential to intervention effectiveness. The behavioural and social approaches to increasing physical activity are further developed in this review. Many of these reviewed studies are aimed at school and education based intervention however Kahn, *et al*, review family, social and individually adapted behaviour change programmes. For the purpose of this study, the interventions that focus primarily on

community and social provision have been identified from this review. 9 social support intervention reports, based in community settings were examined in this systematic review. The aim of these interventions were to develop social capital in communities that provide supportive relationships to support behaviour change. The suitability and design of these interventions were described as having *'fair execution*' (p.84). The typical intervention in this review involved volunteers being used in a buddy capacity in which support was given to participants following self-selected activity goals. These interventions were deemed effective due to these approaches tackling negative perceptions about activity, with 44.2% median rate increases in physical activity. A strength to this type approach was highlighted by Kahn, *et al*, who suggested the frequent support from volunteers enabled exercise adherence.

Belon, Nieuwendyk, Vallianatos and Nykiforuk (2013) examine how the community environment shapes physical activity engagement. Exploring the characteristics of communities, this study aimed to provide a comprehensive understanding of the multifaceted dimensions of the community environment relative to engagement of physical activity. Drawing on the qualitative data of people experiences and perceptions of their community environment, this study identifies the barriers and opportunities for physical activity engagement. 11 communities were approached, of which *n=35* participants participated in this research, 74.3% of whom were female. Participants were aged between 25 and 64 and from socio-economically disadvantaged communities. Themes that were reported in this study were essentially linked to the physical community, (equating to 56.6%), socio-cultural (31.4%), economic (5.9%) and political (6.1%). Within the physical environment of the community, it was reported that there was a contrast between the existence and lack of suitable provision, facilities were convenient / inconvenient and/or

unpleasant. Socio-cultural themes revealed that many communities restricted outdoor activity due to the fear of crime and relayed stories of criminality in the communities they reside. It was reported that the economic environment meant that there was either a lack of affordable provision or due to funding cuts limited physical activity infrastructure. Developing the lack of infrastructure and policies regarding physical activity, it was determined there were specific barriers and opportunities relating to the political environment. Participants identified barriers and facilitators that influence their own engagement and the engagement of others in physical activity. It is suggested in this study that alongside the physical attributes of a community to enable engagement, there are socio-cultural, economic and political influences.

A community based intervention, aimed to increase physical activity and sports in an area of high deprivation was evaluated by Koorts and Gillineoson (2015). Using Glasgow, et al's, (1999) RE-AIM (reach, effectiveness, adoption, implementation and maintenance) framework to identify programme success and a mixed methods approach, the research participants were community members, delivery staff and participants of the intervention. RE-AIM frameworks provides a score in which effectiveness is measured and has been applied to the evaluation of community based physical activity research (Van Acker, Bourdeaudhuij, Cocker, Klesges and Cardon, 2011; Bopp, Wilcox, Laken, Hooker, Saunders and Parra-Medina, 2007; Klesges, Estabrooks, Dzewaltowiski, Bull and Glasgow, 2005). Participants of this programme were children and young adults age 7-14 and of mixed ethnicities. This research used a mixed methods approach to create a case study to examine the impact and effectiveness, drawing on the triangulation of survey data and interviews. Questionnaire and interview data was completed by participants. Further interview data was collected from project organisers, facilitators and parents. 3 programme

managers (1 male / 2 female), 3 head coaches (3 female), 4 senior coaches (1 male / 3 female) and 10 parents (1 male / 9 female) The results of this study indicated that the programme had limited success in terms of intervention reach and implementation, with 2.5% of the targeted population engaging in the programme. However the intervention was successful in terms of community level adoption and rated moderately successful in terms of effectiveness and maintenance. These data demonstrate the potential for such research intervention however it additionally suggests the difficulties associated with measuring impact and effectiveness in real world, community based interventions.

Real world research in communities is explored by Partington and Totten (2012), who examines effective community empowerment through a case study evaluation. Exploring community based sport and exercise provision in Rochdale (UK) communities, this paper identifies the limitations to funding, sustainability and mainstream provision, in small scale communities. Drawing on the ideals of empowerment, Partington and Totten, examine the contributions community based sport and exercise, has up on community involvement and sustainability as opposed to target. It was highlighted that the incorporation of communities in the design and delivery of this intervention enabled empowerment and social capital, and furthermore developing praxis. It is suggested by Partington and Totten that the use of community in the programmes design and delivery, increased community awareness, developing social inclusion, social capital and community ownership. The recommendations following this evaluation were for the statutory agencies consideration of community partnership working, and the involvement of communities in the delivery of provision. Furthermore, there is a need for evaluation to take a step back from target and outcome driven evaluations. Impact can be viewed when examining the micro levels

of community based intervention, thus seeing the further impact of increased community awareness and social capital.

In a systematic review of studies measuring health and well-being for the evaluation of community centric intervention, Dronavalli and Thompson (2015) examine community based intervention. Fundamental to this review was the measurement tools used and how best suited these tools were to the intervention. 123 articles were selected for review, of which 27 measurement tools were reviewed and assessed. The tools were evaluated through an assessment of reliability; validity; responsiveness; length; use in cross cultural settings; the use of subjective measures; clarity and cost. A composite score was allocated to the measurement tools used. Of the 27 tools, 25 were self-administered, the 2 remaining were undertaken through telephone survey or interviewer. Five tools received scores of >0.85 and were classified as excellent. Nine tools were classified as good receiving scores of >0.75 and 0.85 inclusive. Seven tools were deemed as mediocre with composite scores of 0.5 and 0.75. Six tools were classified as poor, receiving composite scores of <0.5 (Median composite score was 0.77). Dronavalli and Thompson, suggest those that received higher scores were short, easy to administer, had good clarity and had good validity and reliability. Although these tools would be beneficial if standardised and little justification was found in the development of new tools. Responsiveness of tools was determined based upon the tools ability to reflect change. Some tools were not responsive within interventions and this was reflected in its effectiveness to identify impact.

In a longitudinal study Mummery and Brown (2008) evaluate a community physical activity intervention aimed to increase walking, by promoting a 10,000 step challenge in areas of his socioeconomic disadvantage. Recruitment of the intervention was

undertaken using traditional strategies and implementation of the project was over a 2 year period. The delivery of the programme was based upon a behaviour change model. Data was collected using accelerometers, self-reported measures and pre and post intervention surveys. This was to provide comparison between communities and workplaces in a quasi-experimental approach. Although the project reported modest success with regards to the behaviour change of the target population, 1500 participants registered with the programme. 100 workplaces and 13 communities had implemented this programme. It was highlighted when exploring project fidelity, that accessing and involving socioeconomically disadvantaged communities was problematic. It was reported that difficulty was found in making physical activity promotion a leading priority in these communities. Findings from the evaluation of this intervention highlighted further gaps in understanding the mechanisms in community engagement. Additionally reporting the requirement for further exploration into how to reach societies more disadvantaged groups. Recommendations provided by Mummery and Brown, are for further examination of best practice to recruit and engage socially disadvantaged communities.

Lehne and Bolte (2017) examine the impact of universal intervention using an equity focused systematic review. This review explores the social inequalities amongst varying populations of older adults. Using quantitative studies this paper considers the effects of physical activity interventions on tackling social inequality. The aim of this systematic review was to identify how interventions consider the effects on social inequalities in physical activity among older adults. Using a PROGRESS-Plus framework (which identifies social factors for participation), to examine intervention through an equity lens, this review explores 59 studies from peer reviewed literature from 2005-2015. The framework identified from data how social factors were

considered both from participant, baseline demographics and for measuring intervention effects. From the 59 studies, 44 studies used at least 1 PROGRESS-Plus factor from baseline data to determine characteristics. 22 studies were considered to have control variables, 11 studies reported on potential effects on inequalities by testing interaction effects and increases in physical activity following intervention. The literature reviewed reported effects from the analysis of gender (*n=9*), age (*n=9*), education (*n=3*), ethnicity (*n=2*) and marital status (*n=2*). The findings from this review report that various social factors were affected by the interventions. Using the PROGRESS-Plus framework it was reported that an overall differential effect analyses highlighted comparisons towards gender and age. However there was mixed evidence for intervention effects according to other factors of social inequality such as education, health inequalities, ethnicity and marital status. The results of this systematic review identified that studies examining the effects of universal interventions, in this population, have not explored effects across different social groups. It is suggested that studies have collected relevant data to identify specific social inequality from populations within specific demographics. Thus suggesting the use of PROGRESS-Plus allows the researcher differential intervention effects to be examined.

2.5 Summary and Conclusion

The literature reviewed in this section has identified the challenges that are faced in community interventions and the implementation of these initiatives being evaluated in real world settings. This review developed primary themes in the challenges in measuring effectiveness and intervention impact in real world settings, sustainability of interventions and the limited resources within socioeconomically disadvantaged

communities. Specific challenges in measuring the effectiveness of community intervention was examined. It is apparent from the literature explored the determinants that outline an effective evaluation rely on robust measures and frameworks to evaluate impact and effectiveness. The examination of literature has further highlighted the challenges and limitations in measuring the efficacy of real world intervention.

Drawing on requirements identified from the funding body's monitoring and evaluation process (see appendices) examining processes of behaviour change was a primary element to this study. To identify if community could influence behaviour change, the processes of change were explored. The following section examines psychosocial behaviour change, behaviour change intervention and the Transtheoretical Model for behaviour change.

Section II Psychosocial Behaviour Change, Behaviour Change Intervention and the Transtheoretical Model for Behaviour Change

2.6 Overview

Intervention attempts to improve health have traditionally focused on the decision and choices of the individual. However this approach has changed with the recognition and consideration that behaviour is influenced by contextual factors such as community and the social environment (Burke, Joseph, Pasick and Barker. 2009). Such environments can either promote or constrain the practice of sport and physical activity as well as influence healthy lifestyles (Hystad and Carpiano, 2010).

This section explores behaviour change models and motivation within exercise and physical activity within a community setting. As highlighted by (Davidson, 2006), there is a significant difference in motivation between the highly motivated participants in the

clinical setting and those in the real world. Therefore, section II of Chapter 2 aims to identify behaviour change models and their application within the real world, community research setting. Following a theoretical overview of behaviour change theory, this section will provide an analysis of literature through the examination of systematic reviews, meta-analysis and longitudinal studies. The purpose of applying a behaviour change model to the analysis of this study was to identify the processes of change and psychosocial factors which influence this transition. It should be noted that the Black Country in Motion was a community and social supported intervention and a behaviour change model was not used in it design. However to identify factors of change the researcher has applied the processes and transitions found in the transtheoretical model to identify project impact.

2.7 Theoretical Overview of Behaviour Change Theory

The primary goal of physical activity intervention studies is to determine the participants change behaviour by modifying their attitudes, knowledge and cognitive variables towards exercise (Marcus and Forsyth, 2009). Several behaviour change theories have been used to identify and explain exercise and physical activity behaviours, these include theories of planned behaviour, social cognitive and self-efficacy theories, self-determination theory and the transtheoretical model to name a few. Validated theories in the physical activity and exercise milieu are highlighted by Biddle and Nigg (2000) who report the most effective being the transtheoretical model (TTM: Proschaska and DiClemente, 1986), social cognitive theory (SCT: Bandura, 1989) and the theory of planned behaviour (TPB: Azjen, 1991).

There is a plethora of research exploring the effects of physical activity and exercise engagement and adherence upon health. Discursive rhetoric associated to physical

activity and exercise is essentially underpinned by notions of motivation (Deci and Ryan, 1991). In essence, motivation to adopt a specific behaviour is the foundation to why individuals initiate behaviours, their engagement in those behaviours and the subsequent outcomes and achievements (Deci & Ryan, 2000). Literature exploring motivation is a fundamentally established component with the sport, exercise and physical activity domain, thus emphasising its relevance to the development of life and health behaviour change. Those who engage with this form of leisure activity are often assumed to be decidedly motivated (Deci and Ryan, 1985). However engaging in and/or increasing physical activity and the motivation for physical activity in sedentary adult's presents a significant challenge (Hagger and Chatzisarantis, 2007).

The polysemic concept of motivation ensures difficulty in definition due to its inability to be directly observed and/or universally standardised. Furthermore interpretations of motivation, remaining unclear whether an individual is intrinsically or extrinsically motivated to engage in physical activity and exercise. Lapointe and Perreault (2013) proposed motivation can initiate behaviour, direct an individual towards a particular behaviour and influence the persistence of behaviour. Therefore motivation can be defined as a hypothetical construct to describe internal/external forces which initiate, direct and perpetuate behaviour. Pertaining to Self Determination Theory (see further on), Lapointe and Perreault further suggests that the exploration of motivation through a context of leisure provides elements of understanding to why people choose to engage (or not) in physical activity. It is this notion of motivation that provides the basis for this specific strand of exploration and in order to provide a basis to identify changes in behaviour. Thus it is the aim of this section to explore behaviour change models and variables for change identified in health and physical activity intervention.

An established theory exploring motivation in the engagement of physical activity is the Self Determination Theory (SDT) and it is through the conceptualisation of this theory, intrinsic motivation are primarily associated with the many common outcomes of behaviour change (Deci & Ryan, 1985, 2000). As a theory relating to human motivation, SDT addresses the varying self-regulatory styles an individual may hold towards participation in a particular activity. The degree of motivation an individual exhibits reflects the extent to which behaviour is autonomous or controlled (Lauderdale, Yli-Piipari, Irwin and Layne, 2015). Further contextualising SDT, Vlachopoulos,, Karageorghis, and Terry, (2000) suggest behavioural regulation can be placed upon a continuum reflecting low and high levels of motivation. Developing Deci & Ryan (1985) the individual's position on the continuum is affiliated with differential significances for learning, performance, well-being and engagement.

Literature highlights a plethora of interventions identifying the symbiotic relationship between behaviour change, health and motivation (Chatzisarantis and Hagger, 2009 Kwan and Bryan, 2009, Bui, Mullan and MaCaffery, 2013). Behaviour change models have been a fundamental element in the design and implementation for a plethora of health interventions (Buchan, Ollis, Thomas and Baker, 2012). The following will examine behaviour change models and socio-cognitive frameworks used in community intervention with the aim of examining the processes and variables involved in changing health behaviours.

2.8 Socio-Cognitive Models

Socio-cognitive models of health behaviours emphasise the developing importance of cognitive health related decision making, identifying factors underlying motivation for behaviours such as exercise and physical activity (Bui, *et al,* 2013). Socio-cognitive

models essentially propose a framework that specifies associations pertaining to psychological and social factors which is used to determine health behaviours. Enabling an understanding of socio-cognitions in an individual's behaviour may determine motivations for behaviour change, specifically for those at risk of health inequalities (Tavares, Plotnikoff and Loucaides, 2009). It is proposed that the testing hypothesized theoretical models enables further understanding of health behaviours by examining how proposed factors interrelate to explain and at time predict patterns of behaviour within health (Dewar, *et al*, 2013). Socio-cognitive models such as the theory of planned behaviour, social cognitive theory and the health promotion model provide a framework which specifies relationships between social and psychological factors which subsequently influence health behaviours.

2.8.1 Social Cognitive Theory

Notable among models of social cognition is Bandura's (1986) social cognitive theory which fundamentally provides a framework which seeks to explain the acquisition and maintenance of healthy behaviours. Drawing on Bandura (1999) research in social cognitive theory of personality, it is suggested that human behaviour is a product of dynamic interplay of personal environmental and behavioural factors. According to Dewar, *et al*, (2013) there is significant importance in identifying the relationship between factors, or "reciprocal determinism", as each factor affects an individual's behaviour (p.484).

Research examining socio-cognitive theories have tested their frameworks to determine how proposed, social and psychological factors interrelate to explain or predict patterns of health behaviour. The outcome of this research often extends an understanding of health behaviours within specific demographic groups, thus

providing an effective theoretical basis for interventions. Studies exploring socio-cognitive frameworks therefore develop the social and psychological variables which either impede or enable health behaviour change. Examples of this are seen in Dewar, *et al's* (2013) research which aimed to test the hypothesized framework of the socio-cognitive theories on physical activity of females from low-income communities, following a 12 month physical activity and dietary intervention to prevent obesity. 235 participants completed socio-cognitive theory tests at baseline, identifying self-efficacy, intention, support and expectations related to their physical activity, with 12 month follow up post-intervention. Results identified that the model explained 28% and 35% variance in activity and intention, however only self-efficacy was associated with physical activity at 12 months. Dewar, *et al* (2013) highlight there was no support for intention or expectations as proximal determinants of behaviour and only expectations predicted intention. Therefore concluding a significant proportion of variance for physical activity and intention requires further investigation as proposed pathways in the socio-cognitive theory framework does not fully explore this. Further suggesting consideration for augmentation and integration of theoretical models (including ecological components), to further develop an understanding of physical activity behaviour.

Further development of the use of socio-cognitive models for predicting physical activity is Plotnikoff, Lubans, Penfold and Courneya (2014) research testing the utility of these models with adults with type 2 diabetes. Arguing theory based intervention to promote physical activity is increasingly more effective than atheoretical approaches, Plotnikoff, *et al*, (2013) compare the utility of three models. The principle aim of this study was to test the predictive ability of the social cognitive theory, theory of planned behaviour and protection motivation theory, in explaining physical activity behaviour.

The fundamental objective being a comparative test using longitudinal design, with multiple time points across intervention; outcomes were measured using both objective and self-reporting. Data was pooled from 3 intervention groups equating to 287 participants (*n* = 53.8% males, mean age 61.6 >11.8 years), across three 6 month time intervals, data was collected at baseline, 6, 6, 12, 12 and 18 month follow ups. Using structural equation modelling physical activity outcome measures were steps for 3 days and self-reported minutes of MET-weighted physical activity of physical activity that week. Theoretical constructs within these three theories were implemented to predict physical activity behaviours across three 6 month intervals. Physical activity outcomes were the objective measures of stops and self-reported minutes of MET per week. This study determined that these theories explained a small proportion of variance in these physical activity studies, with 6.5% variance for objective measures and 8.8% in self-reported exercise. The results of this study displayed a mean variance of 6.5% for objective physical activity measures and 8.8% for self-reported. Plotnikoff, *et al*, conclude the requirement for more research conducted using objective measures. Therefore theoretical development to guide physical activity intervention, aimed at increasing or maintaining exercise requires further research with objective measures.

Fundamental investigation into Social Cognitive Theory and physical activity was conducted by Young, Plotnikoff, Collins, Callister and Morgan (2014) in their systematic review and meta-analysis. Within this review Young, *et al*, (2014) investigated the utility of social cognitive theory to explain physical activity. Examining the effectiveness of 44 intervention studies using a standardised methodological tool, a random-effects meta-analysis revealed that the social cognitive theory accounted for 31% variance in physical activity. It was determined in Young, ***et al's***, analysis that

the social cognitive theory was a useful framework to explain physical activity variance however methodological quality of the studies was limited. It was suggested that higher quality methodological studies examining this theory with regard to physical activity is warranted.

When exploring motivation and socio-cognitive theories, literature examining the theory of planned behaviour develops a model drawing on an individual's intention. For Plotnikoff, *et al*, (2013) an individual's intention to perform is a primary determinant of behaviour, thus reflecting the level of motivation exerted by that individual to perform. Drawing on the work of Plotnikoff, *et al*, (2013) further, they state; 'intention is hypothesized to be determined by attitude, subjective norms, and perceived behavioural control' (p.330).

Identifying the processes between intention and behaviour, Mohiyeddini, Pauli and Bauer (2008) examine the emotional processes which influence sports and exercise participation. Suggesting that the Theory of Planned Behaviour often falls short in the prediction of behaviour, highlighting a gap in predicting intention and behaviour. In a longitudinal study (using a sample, n=237, from an 8 week community intervention), a traditional model based upon the theory of planned behaviour was employed to test intention. An extended model including emotion association was included to identify the intention and emotion associated to exercise as a mediator variable. Prior to exercise, intention to exercise and emotions associated with exercise were measured. Mohiyeddini, *et al*, (2008) study identifies an increase of 17% in explained variance of exercise frequency and a rise of 20% in exercise duration when the extended model was applied. Suggesting emotional appraisal in intention to exercise appears to

mediate traditional behaviour relationships, therefore emotionally based intervention aimed to increase physical activity may assist in raising participation.

2.8.2 Health Belief Model

The health belief model (HBM), is a conceptual framework enables understanding of health related behaviour and reason for the non-compliance of acclaimed health action (King, Blair, Bild, Dishman, Dubbert, Marcus, Oldridge, Paffenbarger, Powell and Yeager, 1992). Rosenstock, Mochbaum, Kegeles and Leventhal's (1974) model addresses components for acquiescence of recommendation for healthy behaviour, which are; perceived barriers; perceived benefits; perceived susceptibility to poor health and perceived severity of such poor health (Turner, Hunt, DiBrezzo and Jones, 2004). Floyd, Pretnice-Dunn and Rogers (2000) disseminate the differences between the protection motivation theory and the health belief model, by suggesting variances contributing to behaviour in the health belief model and a dualistic cognitive process of evaluating threat and coping with consequence / alternatives.

Theories of physical activity motivation and identifying theoretical notions of motivation during the engagement of intervention, have been explored within literature. Such research is becoming increasingly prevalent in the sport and public health milieu (Timperio, Salmon and Ball, 2004; Fitzsimons, Kirk, Bakerm Michie, Kane and Mutrie, 2013; Gardener, Smith, Lorencatto, Hamer and Biddle, 2016; Chastin and Granat, 2010). With increased pressure on health provision, strategies aimed to overcoming sedentary behaviours are becoming increasingly prevalent within sport and public health. It has been suggested that when aiming to increase physical activity in the inactive population, a behaviour and context specific approach is required (Buchan, Ollis, Thomas and Baker, 2012). The premise of which is to understand the

motivations and context in which a sedentary population change such unhealthy behaviours and exercise. Therefore transitions with behaviours and lifestyle changes are prominent within this study, specific emphasis upon the transtheoretical model for behaviour change will be explored. Developing this model further, an exploration into the decisional balance to maintain exercise, the development of physical activity and participant self-efficacy will enable the study to identify this phenomenon. As a distinctive model to identify transitional behaviour change, literature of the impact of this model upon evaluation and effectiveness will additionally be developed (Hutchison, Breckon and Johnston, 2009).

2. 9 Community Influence on Behaviour Change

As discussed previously, behaviour change theories focus on the proximal influences of behaviour, considering the cognitive characteristics of the individual. This is largely uninfluenced by the social context that influence health behaviours (Burke, et al, 2009). There are disparities in health behaviours found across different communities, with those who reside in areas of socioeconomic disadvantage demonstrating increasingly unhealthy behaviours. In an effort to identify environments and communities that are health promoting or health impeding, literature has identified a plethora of contextual factors. Resources and services, community networks and social and economic conditions are influential (Black and Macinko, 2008; Capriano, 2007; Ross, 2000; Eberhardt and Pamuk, 2004).

Exploring community and an individual's sense of community belonging as an influence on health behaviours, Ross (2002) argue that the degree to which an individual is connected to their communities is linked to their health behaviours. Supporting this Capriano (2008) suggests that community belong may influence the

likelihood of behaviour change through health related social norms and attitude (developed further in Section II; 2.10), access to community and community resources and psychosocial mechanisms such as self-efficacy, control and status. Although this area of research identifies the need for community resources and development (specifically in areas of socioeconomic disadvantage), this theoretical position portrays community in a somewhat tradition and nostalgic perspective (see section III; 2.20). Failing to explore those who do not identify or 'belong' to a community or are civically engaged.

2.10 Transtheoretical Model for Behaviour Change - Overview

The evaluation for this programme was multifaceted, aiming to identify the effectiveness of community intervention, through the measurement of increases in physical activity and the impact of the community volunteer. To identify the projects effectiveness in motivating and facilitating changes in physical activity behaviour, the factors and processes which influenced this action were examined. Using a social cognitive framework, the processes and variables which impacted change were explored. To identify the variables and behaviour change processes of participants in the BCiM project, a behaviour change model was applied. It was necessary for the researcher is able to identify the stages of change and social factors was required, therefore the Transtheoretical Model was used.

The transtheoretical model (TTM) for behaviour change was applied to identify such processes and the variables associated to change. Whilst a number of motivational explanations may be feasible; the primary hypothesis for this model is that behaviour does not occur instantly but rather is a gradual process and dynamic in nature. TTM for behaviour change is an integrative model identifying transitions in life changes

(Velicer, *et al*, 1998). The TTM consists of a number of individual components, divided into the three categories of stages of change, dependant variables and independent variables (Armitage, 2009). Prochaska and DiClemente (1984) developed this framework to understand behaviour change, with the notion that an individual transitions through five stages when changing behaviour. These facets of change are subject to variables such as decisional balance, self-efficacy and processes of change, additional to the social cognitive variables of intention and subjective norms. Figure 2f.1 provides a breakdown of the processes of changed highlighted in the TTM.

Figure 2.1 Transtheoretical Model for Behaviour Change: Stages of Change

Source: Prochaska and DeClemente's (1986) Stages of Change Model

Figure 2.1 identifies the stages of change within the TTM however within these stages there are additional variables which impact behaviour change processes. With its multidimensional design the TTM includes five constructs, these facets are the stages of change, which is a longitudinal process. However figure 2.1 does not include the additional psychosocial factors which impact the process of change of decisional balance, processes of change, self-efficacy and temptation (Prochaska and DiClemente, 1986).

When applied to health research the TTM model has been applied in differentiating contexts such as addiction cessation such as smoking (DiClemente and Prochaska, 1991; Fava, Velicer and Prochaska, 1995), diet (Armitage, 2010) and physical activity (Marcus, Rakowski and Rossi, 1992; Walsh, Meyer, Gamble, Patterson and Moore, 2017). Marcus, Rakowski and Rossi (1992b), Marcus, Selby, Niaura and Rossi (1992) and Marcus, Banspach, Lefebvre, Rossi, Carleton and Abrams (1992) were the first academics to apply the TTM stages of change to physical activity. It was defined through five stages of readiness, of which; 1) inactive with no intention of becoming physically active; 2) inactive, but contemplating becoming physically active; 3) engaging in some physical activity but not meeting the recommended guidelines for activity; 4) engaging in regular physical activity for less than 6 months; 5) actively participating in regular physical activity which has been maintained for longer than 6 months (Marcus and Forsyth, 2009).

The TTM is a well exercised model to explore behaviour change within the context of sport and physical activity, and predominantly focuses upon the stages of change dimensions of this model (Nigg, 2005). However, it is highlighted that fundamental to exploring transitions of change, is a further four distinct variable constructs; stage of change; process of change; decisional balance and self-efficacy. The process of change identified within TTM encompasses the behavioural and socio-cognitive strategies individual employ to implement behaviour change (Nigg, et al, 2009). This process is further explored by (Levy and Cardinal, 2006) who suggest there are mechanisms in the process of behaviour change, which are influenced by cognitive, social and behavioural processes. Levy and Cardinal go on to discuss that individuals will '*weigh the pros and cons of engaging in physical activity'* (p.477) and experience

increases in self-efficacy as they transition through the TTM stages. When examining the strand of decisional balance, exploration into extrinsic influence the pros and cons associated with changing of behaviours (Plotnikoff, Blanchard, Hotz and Rhodes, 2009), highlighting the importance of social support in this instance. Plotnikoff, *et al*, (2001) argue however that this is subsequently dependent upon socio-economic influence and external support. The final strand underpinning TTM is that of self-efficacy which refers to the individual's confidence in sustaining changes of behaviour (Benisovich, Rossi, Norman and Nigg 1998; Levy, *et al*, 2009).

Transitional shifts patterns within literature commonly identified in TTM studies are: stable sedentary (contemplation at baseline); stable active (action and maintenance); activity adopter (contemplation at baseline followed by action); activity elapse (action at baseline followed by contemplation); and the perpetual preparer (contemplation at baseline followed by preparation) (Levy and Cardinal, 2013). Drawing on the work of Cardinal, et al, (2010), it is suggested that the advantages to transitional shifts through the identification of stages of change provides opportunity to examine shifts in behaviour patterns, whereas this is somewhat impeded in solely examining stages of change. Brindle, *et al*.'s (2005) review of health interventions/behaviour change intervention fundamentally based upon TTM suggests the neglect of dimensions of the model in its entirety, resulting in elements which impact upon efficacy.

2.10 Trans-Theoretical Model for Behaviour Change - Literature Review

The following section explores research studies that have applied the TTM to examine behaviour change in physical activity intervention. Through the identification of systematic reviews and longitudinal studies, this section will identify the application of this model to research.

Applying the TTM to identify transitional shifts in physical activity, Levy and Cardinal (2006) explore physical activity behaviours amongst undergraduate students in a Higher Educational setting. Data was collected over a 9 week period from 799 participants (at baseline), of which 66.1% (*n=528*) completed follow up questionnaires. Age range from 17-40 (M age = 19.9 years SD 2.7); *n=426* Caucasian ethnicity. The sample for this study were (n=285) female participants, (*n=243*) male participants. The questionnaires used in this study were the self-reported, Weekly Leisure Time Exercise Questionnaire (LTEQ), which enabled the Levy and cardinal to classify participants into five transitional shift groups. These groups were 1) stable sedentary (precontemplation and/or contemplation period) 3.4% (*n=18*); 2) stable active (active and/or maintenance period) 64% (*n=338*); 3) activity adopters (those who transitioned from precontemplation, contemplation or preparation at baseline to action or maintenance at follow up) 12.5% (*n=66*); 4) activity relaspers (those who transitioned from action or maintenance at baseline to contemplation or precontemplation at follow up) 3.2% (*n=17*); and 5) the perpetual preparer (those who are continually preparing to exercise at baseline and follow up) 16.9% (*n=89*).

Results of the 5 groups following analysis at baseline to x1 follow up period revealed significant changes in decisional balance and increases of self-efficacy in those who transitioned. However it was noted that there were decreases in physical activity amongst those within the activity relapsers. This study supported the models ability to identify transitional stages of change and identify decisional balance and self-efficacy in its participants. However, this study provided little support in the prediction of self-efficacy, therefore it was recommended by Levy and Cardinal that further research is undertaken to develop this strand of research.

Examining the effectiveness of health behaviour interventions based on TTM, Bridle, Reimsma, Pattenden, Sowden, Mather, Watt and Walker (2005), systematically review 37 randomised controlled trials (RCT) studies which met health behaviour inclusion criteria. Inclusion criteria for this review was specifically for RCT's that evaluated the effectiveness of the TTM for any health behaviour in which outcomes included behaviour change. This health behaviour included smoking cessation, physical activity, dietary change, multiple lifestyle changes, the uptake of healthy behaviours such as using alcohol/drugs and treatment adherence. Alongside this criteria was the assessment of methodological quality of the evaluation and heterogeneity between studies. Bridle, *et al,* highlight that 35 of the 37 of the studies reviewed, included trials that reported outcomes comparing stage based interventions with non-staged based or no intervention control. Out of all 37 interventions only one compared stage based interventions, 35 trials reported behavioural data on 42 comparative studies. 11 favoured the TTM interventions whilst 20 displayed no difference between the intervention data and the control data, whilst 11 studies were inconclusive. Of the 20 TTM interventions with non-staged based intervention, 5 suggested significant effects of the TTM model in their intervention, 5 reported varied and mixed effects, whilst 10 identified no differences between the intervention and the RCT groups. Overall there is limited evidence that the interventions studied, were more effective using this model in changing behaviour than non- staged based interventions.

Focusing on physical activity, 7 of the interventions explored in this systematic review focused on increasing physical activity. However one did not report data on behaviour change or behavioural outcomes. There was no evidence in this review however, to

support the claim that the effectiveness of the TTM interventions influenced behaviour change. It was recognised that the evidence gathered from this review of interventions would be effective in promoting stage change progression. Bridle, *et al*, suggest that the findings from this review offer future practice to exercise caution in ensuring effectiveness is measured accurately. As it is argued in this review that interventions reviewed lacked evidence regarding the measurement of effectiveness. Additional critique highlighted in this review that the design of many of these studies were tailored to identify stage change. This approach neglected the important components such as self-efficacy, decisional balance and processes of change.

Young, Lee and Sturts (2015) adaptation of the TTM and identifies stages of change in a longitudinal study of *n=626* participants who attend a further education (FE) institution (148 males / 475 females, mean age 31, 18-76 SD). Through the application of a change model, Young, *et al*, were able to depict statistically significant predictability for the stages of readiness for change in this population, using a model called the Stages of Motivational Readiness for Change (SMRC). This study revealed that stages of change varied according to variables such as gender, age, relationship status, BMI and having children. Using a dichotomous measure, 65% of participants in this study highlighted they were active. 11% of participants identified no desire to partake in physical activity, whereas 31% stated they were inactive however were in the process of contemplation. With the use of this model, the researchers were able to suggest that predictability of stages of change could enable practitioners of how to provide effective provision. Young, *et al,* argue they were able to identify the varying stages of change of the studies participants and were thus able to point their transition to the next stage. Young, *et al,* suggest this model could be used to customise interventions and programmes for exercise provision of target populations.

Spencer, Adams, Malone, Roy and Yost (2006) reviewed the research literature of 38 TTM based interventions and discovered that 25 interventions showed positive changes in the increase of physical activity. The interventions in this review highlighted that those that had used a single contact strategy were less effective in their intervention. The authors concluded from this review that the use of the TTM in intervention design was effective in identifying the physical activity behaviour change and when used in design was effective.

In an early study of the TTM, Long, Calfas, Wooten, Salis, Patrick, Goldstein, Marcus, Schwenk, Chenoweth, Carter, Torres, Palinkas and Heath (1996) found preliminary support for using the framework to stage-match interventions to increase this models application on community based settings to increase physical activity. Adopting a pre-experimental design, Long et al, recruited individuals to partake in a 6 week, stage based physical activity intervention within their communities. Long, et al, found that participants that were interviewed followed stage orientation counselling and had subsequently reported increases in physical activity. Data reported 50% of precontemplators reported consideration of partaking in physical activity, whilst 66% of contemplators had made preparation plans or had engaged in recommended physical activity. 75% of active participants maintained their physical activity levels. It was reported from this pilot of the TTM, that there was a significant increase in both stage / transition readiness and adoption of physical activity.

Dzewaltowski, Estabrooks, Klesges, Bull and Glasgow (2004) systematically review behaviour change intervention in community settings with the aim of exploring the generalisation of the results. The interventions examined were from studies in varying

health behaviour interventions such as increasing physical activity, reducing sedentary behaviour, smoking cessation to name a few. Interventions were community based, six studies targeted whole communities, nine studies targeted community sited such as churches and leisure centres and twelve studies targeted homes. Using the RE-AIM framework to explore reach, effectiveness, adoption, implementation and maintenance, *n=27* publications were reviewed. 74% (*n=20*) of the 27 studies reviewed were randomised controlled trials (RCT), n=6 were quasi-experimental designs. It was reported in Dzewaltowski, *et al*, review that these community based studies did now routinely explore the long term impact or effectiveness of interventions. Regarding intervention maintenance four of the studies reviewed did not include a research design and seven studies provided follow up data following the interventions conclusion. The mean rate of attrition in these interventions was 20% and ranged from 4% to 35%. It was considered that the lack of maintenance in these community based studies was problematic as it limited the estimation of impact. In terms of behaviour change, this had a subsequent effect on the research as it failed to determine the success of the intervention. It was determined from this systematic review that to address the gaps between research, practice and implementation in community settings, improvements in reporting elements of evaluation are required.

In a longitudinal study Naylor, Simmonds, Riddoch, Velleman and Turton (1999) examine the effectiveness of stages of change based intervention on increases of physical activity in a primary care setting. *n =294* participants were recruited and provided baseline data following attending a 30 minute health check. Participants were physically inactive, mean age m=42.4 (SD = 15.1); 77% female (n=226) 23% male (n=68); mixed ethnicity. Participants were issued questionnaire assessing stage of exercise, self-efficacy and exercise intensity at point of contact. Following this

participants were counselled accordingly, intervention being stage orientation and exercise materials (plus counselling); stage orientated materials (without counselling) non-stage materials (counselling only). Follow up data was obtained from *n=180* participants. Attrition rates for this study were high ranging from 37 to 44% at 8 weeks and 53 to 67% at 24 weeks. Results of this study reported baseline differences in self-efficacy, age and gender were controlled, highlighting no significant group or interaction effect for stage. However there were significant differences between baseline and 6 months. However no changes in self efficacy and exercise levels were observed. Stage based interventions in this instance were not deemed as superior over the other interventions. Single contact did however enhance motivations to change health behaviours

An additional review of the TTM used in intervention design was identified by Adam and White (2003), who examined 26 papers which documented 16 TTM, community based intervention studies. This systematic review identified and critically reviewed interventions between 1982 and 2001. Criteria for this review was community based health interventions aimed to increase physical activity, adults aged >16, physical activity levels to be measured before and after intervention. Seven interventions used TTM based counselling, four used TTM written material and five used a mixture of TTM based counselling and written information. Adam and White identify that 11 of 16 programmes reported significant benefits as a result of the interventions. The majority reporting short term benefits of engaging in the health intervention, however the longer term impact of these interventions were harder to achieve and in some instances not reported. Drawing on this review, Adam and White suggested further recommendations for future studies, these include; comparative studies to identify the most effective TTM model for delivery; Strategies that recruit and retain candidates

from hard to reach communities or those who are precontemplators; measure physical activity alongside an individual's stage of activity as an outcome measure; examine adherence alongside adoption to identify characteristics.

Hutchison, Breckon and Johnston (2009) systematically reviews physical activity behaviour change interventions based upon the TTM. 24 articles were reviewed in this paper, of which the objective was to include studies that use the TTM model within a physical activity domain. In this review Hutchinson, et al, explore the characteristics and efficacy of the studies, reporting that all 24 of the studies the efficacy differed, with 21 randomised control trials and 3 non-randomised controlled studies. This review explored research conducted between the periods of 1996-2005. The physical activity interventions reviewed in this systematic review varied in intensity as did duration of these interventions. The outcome of these studies identified that 18 of the 24 randomised control groups reported a significant effect for TTM based interventions, in terms of stage progression and an increase in activity levels. Long term results were identified from 8 of these interventions, of which 2 studies had conducted follow-up assessments past 12 months.

Exploring the development of the interventions reviewed, Hutchinson, *et al,* identified that all 24 of the studies used the stages of change dimension to develop protocol, however 7 of the 24 referred to all dimensions of the TTM. Processes of change was used for 17 of the interventions, whereas 15 studies examined decisional balance and 8 explored self-efficacy. Hutchinson, et al, suggest that many interventions that use the TTM reveal inconsistencies regarding the development and application of this model. An opinion that is akin to Adam and White's (2005) systematic review of interventions applying the TTM to intervention design and facilitation. It was reported

that short term interventions (18 of the 24 studies, 75%), reported a significant effectiveness of the TTM based interventions, in terms of stage progression and an increase in physical activity. Long term results, highlighted that 8 of the 24 interventions conducted follow up assessment post intervention. 71% of the studies reviewed developed the use of both stages of change and processes of change. This suggested that the research recognised the multidimensional nature of the TTM beyond the stages of change. However, a valid criticism of the studies reviewed was with regards to project efficacy. It was determine from the findings in this review, that it was difficult to draw accurate success of the efficacy of these TTM interventions.

According to Young, Plotnikoff, Collins, Callister and Morgan (2014), the primary paradigms of sociocognitive theories are predominantly 'self-efficacy and outcome expectation' (p.984). In their systematic review and meta-analysis, Young, *et al,* investigate the utility of social cognitive theories in physical activity intervention, its effectiveness to moderate the behaviour change and the frequency of significant associations between this model and physical activity. In this review 44 studies were examined using 55 social cognitive theory models of physical activity. The methodological quality was assessed using a standardisation model which ensured suitability of design, analysis type and social cognitive theory used. Populations in the studies reviewed varied. Males were significantly underrepresented, with only 22% of the sample being male, 11 of the 55 interventions were female only studies (20%) and 1 of the 55 being male only (2%). Interventions varied with regards to target demographics, with 36% included participants who were experiencing significant health concerns such as diabetes, cancer, multiple sclerosis to name a few. n=30 (55%) interventions included large sample sizes of >200. The physical activity models tested various types of physical activity behaviour and included differing combinations

of theory constructs. For example the use of measuring total physical activity as a dependant variable, using moderate to vigorous physical activity, the use of light physical activity such as walking.

The methodological quality of the physical activity models in the studies examine was poor and it was reported by Young, *et al*, that only two interventions provided evidence for test-retest reliability of all social cognitive measures. The findings from this review and meta-analysis determined that one-third of the variance in physical activity behaviour change met the recommendations for these theories. Methodological quality and sample age moderated the physical activity effectiveness and effect size. Although self-efficacy and goals were associated with physical activity. It was suggested by Young, *et al*, that theoretically the social cognitive theory is an appropriate framework that can explain physical activity behaviour. Recommendations from this review suggest that further high quality studies, with methodologically robust measures are warranted.

2.11 Psychosocial Factors used when applying the Transtheoretical Model for Behaviour Change

Behaviour change often relates to psychosocial and socio-demographic factors. As developed previously, the TTM uses stages of change (which represents the stage which determines readiness for change), along a continuum. Movement through this continuum is often equated with success in the required health behaviour. It is argued that in community interventions, health related change varied and the dynamic nature of changed was influenced by psychosocial and socio-demographic factors. Such factors assist in the individual proceeding to the next stage in change (Lorentzen, Omnundsen, Jenum and Holme, 2009; Armitage, 2009). The variables which impact

behaviour change have been determined as decisional balance, self-efficacy, subjective norms and processes of change.

2.11.1 Decisional Balance

When considering changing health behaviour, decision making requires consideration in which potential gains (pros) and potential losses (cons) are assessed. Decisional balance is based upon the theoretical model developed by Janis and Mann (1977) and a fundamental element within the psychosocial factors related to the stages of change. In a review of 12 studies exploring decisional balance, Prochaska, Velicer, Rossi, Goldstein, Marcus, Radowski, Fiore, Harlow, Redding, Rosenbloom and Rossi (1994) found that the balance of pros and cons was related to stages of change. In the precontemplation stage, it was considered the cons of changing behaviours outweighed the pros. With the contemplation to preparation stages, decisional balance towards the pros are increased and the cons are decreased. Within the action and maintenance stages of change, the pros outweigh the con. Therefore as an individual advances through the stages of change, they identify an increase in pros, identifying the benefits for changing behaviour and a decrease in the reasons for not changing behaviour. According to Ekkekakis (2003), engagement in exercise and physical activity is primarily based upon cognitive factors such as the pros and cons to partaking; appraisal of personal capabilities, self-efficacy and evaluating sources of support.

2.11.2 Self Efficacy

Self-efficacy expectations are essentially associated with an individual's belief in their capability and/or ability to successfully carry out a specific course of action (Rogers, McAuley, Courneya and Verhulst, 2008). Self-efficacy posits that confidence in an

individual's ability to undertake or adhere to a specific behaviour is related to one's ability to perform that behaviour (Finnell, 2005). Prochaska and DiClemente (1992) suggest self-efficacy is necessary when beginning, engaging and maintaining successful behaviour change. Examining levels of confidence in relation to change, Nigg, Geller, Motl, Horwath, Wertin and Dishman (2011) suggested that those at the precontemplation stage were least confident in their ability to adhere to change. Whilst those who were in the maintenance stage reported higher levels of confidence and self-efficacy.

Measuring self-efficacy has proven affiliation to the prediction of physical activity and is specifically used to assess an individual confidence in their ability to overcome barriers or to perform within that environment (Mcauley and Blissmer, 2000). It has been suggested that increasing self-efficacy subsequently correlates to an increase of physical activity and exercise (Dishman, Motl, Sallis, Dunn, Birnbaum, Welk, Bedimo-Rung, Voorhees and Jobe, 2005), therefore this has been a significant area of development when exploring engagement and adherence. Emphasising specific barriers is an important component when evaluating self-efficacy; as Rogers, Courneya, Shah, Dunnington and Hopkins-Price (2007) suggest, greater perceived barriers to physical activity and exercise negatively influence self-efficacy and therefore reduce activity engagement and adherence. However self-efficacy is reported to increase with stage progression (Marshall and Biddle, 2001).

2.11.3 Processes of change

Transitions between stages in the TTM are often affected by a set of variables known as processes of change. The processes of change are actions taken by people engaged in the alterations of their behaviour, thinking or relationships. Prochaska,

Velicer, DiClemente and Fava (1998) suggest two primary categories of change processes; being experimental and behavioural. The experimental processes are related to the activities undertaken by those going through behaviour change. Specifically relating to the way people think or feel as they embark on making behavioural health changes. Such activities may incorporate seeking further information about the lifestyle the individual is moving towards, the recognition of role models, hearing narratives of those who have previously experienced that transition. Juxtaposing this, behavioural processes of change correlate with the activities that the individual aims to change. Such behaviours include rewards for making behaviour changes, seek social support to reinforce positive behaviour change or substituting changed healthy behaviours for prior unhealthy behaviours.

It is suggested there is a systematic relationship between the processes of change and the stages of change. Prochaska and DeClemente (1986) suggest individuals who are in the earlier end of the stage of change continuum, such as pre-contemplators tend to not engage in this activity as they are unaware of their unhealthy behaviour. As individuals transition through the stages of change continuum they become increasingly reliant on processes of change. Individuals who are in the stages of contemplation and preparation they will rely on strategies to examine the emotions they are experiencing about changing their behaviour. As they take action to change the unhealthy behaviour, an individual will rely on strategies aimed at changing their behaviour to move towards adherence and maintenance.

2.11.4 Social Support, Subjective Norms and Attitudes

One of the more salient influences in physical activity behaviour change is social support and is subsequently an important determinant to successful transition through

the TTM. Such support can act as a motivator to both initiate and adhere to physical activity, exercise and sport (Eyler, Baker, Cromer, King, Brownson and Donatelle, 1998). Research on social support suggests a pre-existing positive relationship between the support an individual receives and its impact upon physical and mental wellbeing (Gottlieb, 1983; Ganster and Victor, 1988) and gauging group cohesion (Manning and Fullerton, 1988).

Lorentzen, Ommundsen and Holme (2007) explore the psychosocial factors which influence the changes from sedentary to active and the subsequent maintenance of physical activity. Lorentzen, *et al'*s, study aimed to identify the relationship between psychosocial factors and physical activity stages of change, the influences of socio-demographic factors and the interactions between psychosocial factors in their relation to change. Suggesting each stage of change was influenced by varying psychosocial variables. Evaluating a three year community intervention (*n= 2336*, mean age 48, SD =10 years), participants completed self-administered questionnaires that examined stages of change, self-efficacy, social support, attitude and identity. This study demonstrates a correlation between the stages of behaviour change and psychosocial factors, in which self-efficacy appeared to be a significant predictor of change. Identifying that psychological barriers related to self-efficacy included being tired, mental health barriers such as anxiety and depression, feelings of stress and no-one to exercise with. Self-efficacy appeared to significantly influence physical activity engagement in precontemplators and contemplators. However self-efficacy increased as participants gradually moved through the stages of change.

Drawing on ecological models, De Meester, Van Dyck, De Bourdeaudhuij, Deforche and Cardon (2013) suggest environmental variables and interaction with others not

only directly but indirectly influence participation in physical activity. Following the analysis of data collected from 32 community, neighbourhood walkability programmes, aimed at increasing physical activity in adolescents. De Meester, *et al*, identify that *n=637* adolescents aged between 13-15 (49.4% male, 50.6% female), completed survey based questionnaires, measuring psychosocial factors which influence exercise participation. Additionally participants were required to wear accelerometers for a 7 day period. It was highlighted that those who resided in lower socio-economic areas, perceived many barriers and fewer benefits to partaking in physical activity than those in more affluent communities. However it was reported that interventions that influence the psychosocial factors, can be positively associated with promoting physical activity participation. De Meester, *et al,* suggest the findings from this study support the posited ecological models and by improving neighbourhood walkability, it may increase physical activity in areas with negative psychosocial profiles.

D'Angelo, Fowler, Nebeling and Oh (2017) develop the use of ecological models to examine factors for participation and psychosocial variables in adolescents. D'Angelo, *et al,* suggest that there are associations between engagement in moderate to vigorous physical activity and social norms, friend support and attitudes. Using a national sample of 12-17 year olds (*n= 1,737*) who completed a 15 item, self-reporting, physical activity questionnaire (Youth Activity Profile), during their engagement in a national health intervention. The measures used were developed to identify friend support, friend norms, barriers, attitudes, motivations and self-efficacy. Of which the primary principle of this study was to examine the interaction between environmental and these psychosocial factors in increasing physical activity. A multi linear regression model was used to identify the psychosocial and socio-demographic variants. It was highlighted that those who resided in higher socioeconomic areas had greater access,

support and attitudes were strengthened towards positive physical activity engagement. Whereas those who resided in low socioeconomic areas demonstrated decreases in self-efficacy and social support alongside experiencing environmental barriers such as lack of resources. D'Angelo, *et al*, suggest consideration is made when targeting physical activity intervention, in which psychosocial factors are considered and strengthen as part of intervention.

Examining the psychosocial influences on behaviour change through community based physical intervention, Lorentzen, Ommundsen, Jenum and Holme (2009), evaluate a 3 year community intervention, promoting physical activity. The interventions aimed at generating forward transitions through the TTM by influencing the psychosocial mediators. The evaluation aimed to examine the outcome of this and what factors influenced the transitions in stages of change amongst socio-economically disadvantaged communities. Aged between 31 and 67 years, *n=2955* intervention participants and *n=3185* control community of similar size, age and gender, partook in a baseline health survey. Follow up data was undertaken by *n=2336* participants (79.2% intervention and 80.4% control). Participants completed questionnaires to determine their position in the stage of change continuum at baseline and two points of follow up. Further assessment measures to identify psychosocial mediators were examined exploring self-efficacy, attitude, decisional balance and subjective norms. It was reported that 35.1% of the intervention group progressed one or more stages, 45.9% remained at their baseline stage and 19% regressed one or more stages. The control group 27.3% advanced in stages, 53.5% maintained their initial stage and 19.3% regressed one or more stages. It was further reported that the strategies employed indicated support from family, perceived control were influential in transitional change, it was suggested these mediators would be important in

interventions promoting physical activity. Self -efficacy and attitude variables showed significant results between changes in stage in both the intervention and control groups. This study supports that influencing psychosocial aspects of community intervention aiming to change behaviour can effectively support and influence change.

2. 12 Summary and Conclusion

The constructs of the TTM were examined in this review provided further understanding of behaviour change processes, from a readiness to change, engagement in the stages of change and adherence. It has additionally emphasised the importance of psychosocial factors, which impact the processes in which behaviour change occurs. However it has could be suggested from exploring literature that application of the TTM in some research does not do the model justice in identifying the psychosocial variable such as processes of change, support networks, decisional balance etc. When interpreting the strengths and the limitations of the TTM in its ability to examine or predict behaviour change, there are specific points that have been raised in the literature reviewed. Literature has highlighted the requirement for exploration into the psychosocial variables that influence behaviour change, specifically in community intervention.

Section III Volunteering, Volunteerism and the Delivery of Physical Activity in Community Settings

2.13 Overview

This section explores community volunteering and literature that examine the impact of community based physical activity and sport intervention has upon the community volunteer. As highlighted by Nichols (2005) the community volunteer in this milieu

contribute to almost a quarter of all community sport and exercise provision. Furthermore, literature suggests such provision and community based opportunities are essential in the acquisition of social capital, increasing opportunity for social mobility and developing social cohesion. Therefore following a theoretical overview of volunteerism theory, this section will review literature that explores, volunteering and the community physical activity and sports volunteer.

2.14 Theoretical Overview of Volunteering

The phenomenon of volunteering and civic action has become an area of study identifying the inclusively yet robust notion of social action, with research in this field examining concepts from; barriers to participation, diversity of motivations, social policy and organisational locales (Rochester & Hutchison, 2002, Rochester, 2006). Research has identified that volunteering contributes to increasing individual development, addressing societal needs and social cohesion. Thus the voluntary sector has become of growing interest as a means for delivering social policy (Charlesworth, 2012), as a supplement to public sector provision (Morgan, 2013), and become fundamental to the community sector and sports (Adams & Dean, 2005). Volunteering in its crudest description is in essence the voluntary action of an individual or group orientated towards the development of oneself or that of a collective of people (Van Til, 1988). Traditionally seen as an act of philanthropy, Rochester (2006) describes volunteering as ‘a gift of time analogous to the donation of money’ (p.3). Volunteering in this context has traditionally been viewed as non-profitable gift of time. However as the examination of volunteering has developed, so has the paradigms that underpin its understanding. A plethora of research has been

undertaken to examine this social phenomenon, exploring motivation for voluntary action, its impact on communities and the development of social capital to name a few.

2.14.1 Volunteering Paradigms

Changing societies and the interpolation of alternative perspectives on the nature of volunteering, saw a shift from traditional non-profit voluntary action to that of civil society action thus introduced additional paradigms. Lyons, Wijkstrom & Clary's (1998) shaped research in the volunteer and Third sector by providing distinctive paradigms, which they identify as the non-profit paradigm and the civil society paradigm. In doing so non-profit volunteering is understood as an individualistic and intrinsic act of philanthropy or altruism. Focusing attention on the delivery of non-profitable, public service provision and of interest in the disciplines of economics and management. Whereas the civic society paradigm draws on policy, social science and sociology disciplines. Focused interest of this voluntary action primarily contributes to social change and civic action. Both paradigms subsequently influencing research albeit, from diverse perspectives within the issues of volunteering and social action. Furthermore contextualising the concepts of Osborne (1998) distinguishing individualised and organised action, O'Regan (2000) draws on notions of *Voluntaryism;* exploring the relationship between the individual and society and acts of free will, *Voluntarism*; organisational level and characteristics of voluntary and non-profit organisations and *Volunteerism*; exploring the individual's actions in society.

Developing this further it is Rochester, Ellis-Paine & Howlett (2012) who identify perspectives on volunteerism, voluntaryism and social action by developing distinct paradigms, of which dominant discussion are specifically affiliated as non-profit

paradigm. Thus enquiring focus from academic disciplines ranging from economics, management, policy, psychology and social sciences. Rochester, *et al*, (2012) therefore suggest that the dominant paradigm for volunteerism provides a specific view of social phenomenon from an altruistic perspective. It is within this paradigm that motivations for this form of volunteering essentially takes place in broad fields of social welfare and people who have philanthropic motivations do so with the means of helping others. This perspective provides volunteering opportunities in largely professionally staffed, formally structured organisations, with recruitment being for specific roles within these often charities or third sector organisations.

Juxtaposing notions of philanthropy and altruism, the civil society paradigm is instrumental in nature and finds motivations for those engaged with this type of voluntary action entrenched in self-help and/or mutual gain. The premise of this is essentially based upon the ability of people to work collaboratively to meet a shared goal and / or needs and to address common problems. The areas of activity within the civil society paradigm are less focused upon the delivery of a service and increasingly analogous to the offering of mutual social support. With the organisational context of this voluntary cluster are a little less formal and continually developing dependent upon personal and community requirements (Rochester, 2006). It is in this context of volunteerism, that this research focuses its analysis. This is due to the nature of the intervention being that of civic action and community.

2.15 Volunteerism

Volunteerism is defined as a long-term, pro-social behaviour that benefits others and occurs within an organisational context. Based on this definition, Eckstein (2001) suggests collectivistic based volunteerism involves prosocial acts of generosity.

Penner (2002) argues volunteerism is underpinned by four principles of longevity, planned behaviour, non-obligation and an organisation context. Volunteering in this context highlights specific dispositional variables including personal beliefs and values, personality traits and motives. Within psycho-sociological discourse the act of volunteering is categorised under a discipline of behaviour which is in turn is termed as 'pro-social' (Finkelstein, 2008). Such acts of community engagement, civic action and community volunteering are inherent in the volunteerism paradigm. Cuskelly and O'Brien (2013) argue that it is this act of volunteerism that is often used to sustain communities. Suggesting the importance of volunteering and that without the volunteer sector education, public sector care, sports and leisure could be detrimentally affected. Furthermore, Cuskelly, Hoye and Auld (2007) argue that many of the *"attributes of community life usually taken for granted could disappear"* (p.2), consequently having an adverse effect on perceptions of community and community life.

Given the psycho-sociological benefits of this prosocial act, it is not surprising there is considerable interest in knowing who volunteers and essentially the social and/or personal motivations that lead people to volunteer. Directive in this area of study has produced prevalent work from Clary, Snyder & Stukas (Clary and Snyder, 1991; Clary, Snyder, Ridge, Copeland, Stukas, Haugen and Miene, 1998; Snyder, Clary and Stukas, 2000; Clary & Snyder, 2002; Stukas, Worth, Clary & Snyder, 2009), exploring a somewhat functional, psychological approach the motivations for social and community involvement. Whilst the functional approach has been applied to traditional forms of volunteerism motivations, many tools have been used to evidence this, as it assumes favourable outcomes from matching motives to volunteerism and affordances (Guntert, Neufeind & Wehner, 2015). Fundamental exploration is to why people volunteer and what influences civic engagement has led to a survey tool to be

developed, the Volunteer Functions Inventory (VFI) (Clary, *et al*, 1998), assesses six principal motives for volunteering. Primarily the six motives aim to examine; a) the expression of values; b) to provide an understanding of the world and its people; c) for positive self-enhancement; d) the protective effects against guilt, self-doubt and additional negative feelings; e) engage in one's social reference groups; and f) the acquisition of career skills, opportunities and enable social mobility. It is suggested that volunteers who saw a specific motive as important "*would be likely to pursue a voluntary activity for that purpose*" (Stukas, *et al*, 2009; p. 6).

However, in accordance to other functional, motivational theorists not all volunteer activities provide opportunity to meet motivational need (Clary, *et al*, 1998). Therefore volunteers may not find an activity that serves a particular function, and thus fail to offer satisfaction to motivational requirements, therefore volunteering behaviour will ultimately cease and become unsustainable (Penner, 2002). However Davis, Hall and Meyer (2003) argue that it is the fulfilment of motives, rather than the importance of the activity that sustains volunteerism. A model developed by Davis, *et al*, identifies the processes of volunteering and proposes a causal relation between motive fulfilment, satisfaction and the amount of activity and persistence to volunteering. It was discovered that motive fulfilment did predict satisfaction, however satisfaction did not predict continuity or sustainable volunteering and was only modestly related to time spent volunteering.

The sustainability of volunteers has been further examined by Cuskelly (2008) and Cuskelly and O'Brien (2013) who have further examined motivations in continuous volunteers drawing on continuity frameworks. It was highlighted that continued,

sustainable volunteering is often an extension of a volunteer's involvement in an activity or community. Furthermore through this voluntary action, there was a continuity in relationships and a deepened sense of belonging. Penner (2002) and Finkelstein, Penner and Brannick (2005) combined functional analysis and role identity theory to examine the volunteer process, in which it was highlighted a correlation between role identity and the length of volunteer service. Developing role identity in this context further, Penner (2002) goes on to examine citizenship and identity, suggesting citizen role identity correlated with citizenship behaviour.

2.16 Volunteering in the UK

The true picture of those who volunteer is unclear as there are inconsistencies within volunteer statistics. Research undertaken by the Institute for Volunteering Research (2013) estimates the voluntary sector contributes £22.7bn to the UK economy. Whereas the Bank of England, estimates the value of volunteering to be worth £50bn and £200bn to the UK economy. The assessment of value for volunteering somewhat restricts this act to equate monetary values as opposed to examining the social value in this civic action and its well-being economics.

Extant literature exploring volunteer demographics suggests that despite decades of policy and agendas aimed to increase volunteering in a bid to tackle social deprivation and increase capital, engagement of hard to reach communities is challenging in itself (Eley and Kirk, 2002; Blackshaw and Long, 2005; Scott, 2011). Statistics highlight those with better health, students and those in the four highest socio-economic groups are increasingly likely to volunteer (CASE, 2011), which turn poses a challenge when engaging those who are not in this demographic. Furthermore literature informs us that in times of economic hardship and austerity, volunteering experiences a

downward trend (Taylor, *et al*, 2012). This is further supported by the Office of National Statistics (2017) who identify that there has been a 15% decline in voluntary action between the years 2005 – 2015. Research has identified the challenges facing a viable future of club-based and community based volunteers (Sport and Recreation Alliance, 2013; Taylor, *et al,* 2003; Nichols, *et al*, 2013). This research emphasises a shortage of volunteers and it has been highlighted that this is a result of an increase in episodic volunteering i.e. one-off, short term or limited time volunteering). It is argued by Nichols, (2005) that the majority of volunteering tasks are completed by a number of 'stalwart' volunteers and there is a subsequent decrease in volunteering numbers. Nichols (2015) goes on to suggest the number of people that are volunteering in sport and physical activity is likely to significantly reduce when suitable replacements for these stalwarts are required in future years. However volunteering and civic action are continual ideals in current social policy and community provision and has recently extended to sport and physical activity policy (see section 2.18).

Applying a postmodern theoretical perspective on current trends in volunteering in the UK, Rochester (2017) examines the challenges to current voluntary action. Rochester suggests there a significant impact upon volunteering from the increase of consumerism and individualisation. Suggesting that consumer choice has influenced ideals of gratifications, signifying that the "*good things in life*" are commodities and that such marketization has become a substantial threat to the values of volunteerism (p.5). Rochester goes on to discuss the rise in episodic volunteering as a result to current changes in the labour market. Suggesting more people are tied in to a zero hours contract and short term employment, therefore working hours are unpredictable, subsequently affecting the ability to commit to volunteering on a regular basis.

Growing social isolation as a result to individualisation are contributing factors, increases in pragmatic and scepticism towards community and social action resulting in what Rochester refers to as a '*new model*' for volunteering (p.10). This new model takes a more episodic form of volunteering, in which an individual may use their time in what is clearly a limited time to be involved in an act that expects to be "*intrinsically rewarding*" (p.10). The primary form of episodic volunteering has been the development of micro-volunteering (NCVO, 2013), in which an individual takes contribute their time in convenient, short portions. Supporting this Nichols (2017) argues changes in society from a modernist society, leisure is explained as structural factors such as occupation, ethnicity, sex and family role, is replaced by a post-modern one in which class and gender are replaced by more a fluid identity, in which experiences of society are more individualistic as opposed to collective. It has been argued that in this postmodern condition, collective community identity and prosocial, common interest has been replaced by individualism (Coalter, 1999; Grusec and Sherman, 2011). Blackshaw (2013) contextualises Bauman's notion of '*Liquid modernity*' to argue that within leisure, an individual may actively participate in 'the construction of structures which shape their leisure choice' (p.120)

In the context of sport and physical activity, the delivery of community provision with sport has evolved through practice, research and evaluation. With literature arguing that a bureaucratic, top down approach to community sport intervention excludes marginalised groups in society (Coalter, 2006), it further argues a one size fits all approach when increasing participation additionally fails (Hylton, 2013). Direct state control and a top down approach to the delivery and implementation of health policy (through community intervention), has therefore altered from hierarchical governance

(Skille, 2008) to essential community led provision. Through this evolution and challenges to sustainable provision, there is a desire to develop a more sustainable models for intervention, which maintain participation outside of funding cycles and short term results. This argument for intervention is consistent when exploring community development, social inclusion and volunteerism. Traditional paradigms of volunteering are inherently influenced by community need (Rochester, *et al*, 2010). Thus the voluntary sector has become of growing interest as a means for delivering social policy (Charlesworth, 2012) and as a supplement to public sector provision in areas of the community sector (Morgan, 2013). Volunteers within the context of civic action highlight the collective actions of some to seek the improvement of communities or society (Rochester, 2006).

2.17 Volunteerism and Sport, Exercise and Physical Activity Provision

In a sporting context, the phenomena of volunteering and civic action have been identified to contribute to increasing social and individual development, addressing societal needs and social cohesion. Volunteering in community sport is prolific with a quarter of community volunteers working within this sector (Nichols, 2006). The scale of volunteers in the sports domain provides some indication to its importance to facilitate and provide sport opportunities (Nichols, *et al,* 2005). Sport volunteer collaborate and interact at various levels across the sports and physical activity spectrum, contributing time and effort with particular sports organisation. This voluntary action often involves a complex collection of interrelationships between those using the services, strategic and operational management and governing bodies.

The scale of volunteer participation in sport is dependent upon how volunteering is defined, conceptualised, measured and reported. Volunteers participate in a variety of ways, in both a formal and informal manner and across organisational domains (Taylor, *et al*, 2013). There is significant variance in the frequency in which volunteers contribute their time and the hours they engage in this practice. Due to such variances in measurement and differences in survey reporting methods, there are often inconsistencies when examining voluntary action on a national basis. An example of this is identified when examining recent survey data. Drawing on a national survey undertaken the civil society almanac of 2017, it is suggested that 11.9 million people formally volunteer in the UK. Whereas Carmichael, Grix and Marques (2014) argues that within the UK, 21 million people formally volunteer. The duration in which an individual volunteers has additionally altered across varying studies. The challenges to sustainable voluntary action has been discussed previously and in the context of sport this does not differ. The primary reasons for these problems to long term volunteering include time pressures, changing attitudes to community and community volunteering, greater demands on the voluntary sector and poor recruitment and retention structures These challenges further exacerbate the challenges in voluntary community sports to motivate and recruit new participation in sport and physical activity (Harris, Nichols and Taylor, 2017)

When identifying volunteering motives for those who engage in community sport, Cuskelly, Hoye and Auld (2007) provide a framework to analyse the spectrum of volunteering in sports organisations. Divided volunteering paradigms between traditional and contemporary, this framework describes the differing structures behind formal and informal sports volunteering.

Table 2.3 Volunteering Framework

Traditional / informal	Contemporary / formal
• Motivations are community or communal driven with mutual enthusiasm, based on friendships and enjoyment. • Culture of informality • Cooperative culture. • Pragmatic solutions to problems. Longevity of volunteers • Reactive rather than proactive • Professionalization is often seen as a threat to the culture of the organisation • Mistrust of external agencies and perception of this seen as additional work	• Motivations include friendships and driven by want of the club to do well not just that of the individual • Likely to use procedures and policies, such as mentoring and training • Systemic involvement with each member designated a role • Proactive in anticipating issues that may arise • Professionalization as a response to pressures in which external professionals are required i.e. coaches • Receptive of external agencies assistance, welcoming such help to aid the resolution of issues. Exploitation of external assistance

Source: Adapted from Cuskelly, *et al*, (2007)

Distinguishing between formal and informal volunteering in Cuskelly, *et al*, (2007) outlines the differences in motivations to volunteer, the culture, beliefs and values of those and the dynamics which influence its structure. Harris, Mori and Collins (2009) suggest, the majority of voluntary sports clubs do not envisage themselves as formal due to the nature of the implementation system for community sport. It is often the priority of the volunteer to maintain the sustainability of the sports club and deal with the day to day issues that this incurs (May, Harris and Collins, 2013). Furthermore May, *et al,* (2013) argue that the majority of volunteer run sports and physical activity clubs do not have the time, inclination or resources to provide community based sports opportunities to the wider community. This additionally impacts upon the development and recruitment to further membership or engagement of participants outside of their sports club.

2.17.1 Diversity in Volunteering

There is a plethora of research that has examined the demographics of those that volunteer, however there is little known as to the motivations and barriers to why specific demographic groups do not volunteer . Evidence suggests that individuals from BAME backgrounds tend to volunteer less than their white counterparts (Fujiwara, Lawton and Watt, 2018).

According to Understanding Society research (2014-2015) BAME groups are under-represented in community volunteering compared to the national average . It is suggested that 13% of the total number of volunteers in the UK are from BAME backgrounds. Therefore BAME groups are less likely to volunteer than white British groups, however a multitude of demographics makeup BAME. As previously discussed, research informs us that people from lower socio-economic backgrounds are less likely to volunteer (17%) lower compared to those in higher socio-economic backgrounds. Furthermore, according to government statistics BAME groups are more likely to reside in areas of high deprivation (Gov.UK, 2018). Those who are in lower income sections of society and are from BAME backgrounds are 40% less likely to volunteer compared to higher income BAME individuals.

Motives for volunteering in this demographic group was essentially altruistic in nature, aiming to improve their environment or help their communities. Main barriers are a lack of time due to work and other commitments, and/or knowledge barriers based upon a lack of information or knowledge.

The benefits of volunteering for BAME groups was examined by the Diversity in Volunteering Group (2019) who highlighted that volunteering increases health and

wellbeing, trust and social mixing and decreasing prejudice due to meeting individuals from different ehtnic groups.

The Citizenship Survey (2014) identified that women are less likely to volunteer in sport compared to men. Barriers to volunteering participation and civic action were identified by women as a lack of time due to family commitments. In addition to work commitments, it was highlighted that women were the primary caregivers to children, and older family members. The role of women was commonly described as a one of duty and attitudes towards leisure time and volunteering was often a lack of time and not wanting to take on other commitments outside of the family.

2.18 Social Policy and the impact of Austerity on the Voluntary Sector

However, due to current austerity, sport and physical activity has become increasingly more reliant on volunteers. Such national austerity has brought with it budget cuts, reduced public sector spending and an increase in private sector provision. Therefore provide conflict and dissonances arise between competing discourse of policy and the implementation of community intervention (Grix and Carmichael, 2011). It is evident that through austerity there has been a shift from public sector governance and neo-liberalist political agenda, as seen through the development of David Cameron's Big Society. Inherent in its notions of active citizenship, Big Society envisages volunteerism as the social glue that binds communities together and protects from individualism (Ishkanian, 2012). The rationale for this policy change is primarily the shift in societal responsibility. Therefore instead of asking the state to alter society for them, it was a paradigm shift in which communities were responsible for their own affairs. For David Cameron, the Big Society agenda is about devolution, and aimed to redistribute power to local communities and with this redistribution comes a shift in

responsibility (Cameron, 2010). It is in this concept that the motive to move away from big government and to '*devolve power to neighbourhoods in order to release the resource of local volunteering*' occurs (Ketola, 2012; p.162).

Collins (2013) highlights that the incorporation of the voluntary and third sectors in sport policy with the premise of alleviating funding cuts and the effects of austerity. As previously discussed the discourse in sport policy has rhetoric pertaining to volunteerism and civic action. The origins of which are identified by Kay & Bradbury (2009) who develop the political agendas of active citizenship, social action and volunteerism through the development of New Labour's social inclusion agenda. The premise of which aimed to incorporate sport into ambitious policies, with the aim of reducing social deprivation, social exclusion, criminality and engaging the socially disaffected through opportunities to develop social capital (Blackshaw & Long, 2005).

Drawing on research undertaken prior to the 2014 Commonwealth Games in Glasgow, McCartny, et al, (2010) explore the development of such policy and the benefits of hosting the games in relation to improving health, health and social capital (social capital is explored further in section 2.19). With Glasgow being deemed as one of the most deprived and unhealthy cities in the UK, the 'legacy' encompasses ideals in the investment of mega events to contribute to the improvement of community and health through the development of social capital and subsequently increase physical activity participation. This focus on legacy and the development of capital was akin to the London 2012 Olympic games, a collective of health and sports professionals and policy makers advocated impact assessments with the aims of such mega events leaving positive social and health legacy.

Volunteering at mega events has become a common element to the infrastructure associated with such events (Roche, 2000). The use of volunteers is economically beneficial for event organisers and public recognition for volunteers of mega sporting events is widely acknowledged. However, more is known about those who partake in long term volunteering as opposed to such episodic volunteering. Such voluntary action is done without the expectation of monetary reward and altruistic in nature and are often viewed as an activity of leisure (Nichols and Collins, 2005).

Such episodic volunteering is increasingly visible when examining the current employment agenda pertaining to volunteering action (Ellis Payne, et al, 2013). With employers expecting potential employees to have had experience prior to gaining employment, many are now engaging in episodes of volunteering to gain such experience. It appears that the experience gained through voluntary action essentially increases an individual's employability. It could be suggested that such episodic volunteering impacts upon the sustainability and longevity of community based projects (as discussed previously) (Nichols, 2018).

2.19 Sports Policy and Social Capital

Sport policy literature highlights the subsequent changes political ideologies have upon the implementation of sporting provision and the socio-economic impact of community delivery (Pertaining to Sporting Futures, DCMS, 2016). Further conceptualising the volunteers role within this research, it is argued that with growing emphasis and concern with the sedentary behaviours, physical inactivity and health issues within areas of high socio-economic deprivation, and in these times of austerity public sector provision is significantly depleting leaving a distinct onus for public health and sport to seek alternative provision (Scott, 2011; Charlesworth, 2012). With

governmental interest increasing over the past 20 years, it has thus been recognised the contribution volunteering makes to a cohesive society and as a means to enabling social mobility (Boeck, Makadla, Johnson, Cadogan, Salim and Crushing, 2009).

An exploration of sport policy literature highlights the subsequent changes political ideologies have upon the implementation of sporting provision and the socio-economic impact of community delivery (Nichols, 2005). Drawing on recent policy, Sporting Future: A new Strategy for an Active Nation (DCMS, 2016), the community volunteering is a significant element. With community volunteering in sport being a fundamental ideal in current policy, policy appears to have a somewhat idealistic view of the powers community holds. Furthermore suggesting community volunteers have the ability and skills to sustain civic engagement and participation. The government's recent sports strategy identifies sport and physical activity as a means to the ends of physical well-being, mental wellbeing and the development of individuals, society and communities (Cabinet Office, 2015). Key performance indicators are identified, not only in increases in sport and physical activity participation but also in increases in sport volunteers.

When exploring the impact of volunteering and engagement in community sport interventions, research has highlighted a number of benefits. The potential of volunteering, sport and exercise to influence and enable social mobility and cohesion has been noted by policy makers and academics alike (Jarvie, 2003; Collins, 2010). Such contributions include the integrated development of social networks, collective identities, health and wellbeing enhancement, along with the acquisition of human capital (Lawson, 2005; Lee, Cornwall and Babiak, 2012). It is through sport and

exercises contributions to community, that we are able to examine the relationship between volunteerism and social capital.

Although volunteering in sport has a distinct history in the development of amateur sport, leisure and community sporting clubs (Doherty, 2006), it is suggested that over the last decade, social action and volunteering has provided an influencing thread throughout sport policy (Jarvie, 2003). The impact of sport policy, public health policy and austerity, have resulted in volunteerism in sport becoming an integral element to the sports sector (Coleman, 2002; Nichols, 2005; Stebbins, 2001). Thus community sport and volunteering are perceived to provide a somewhat synergistic relationship within current sport and health agendas. Current literature has begun to highlight the developing phenomenon of the community volunteer and active citizenship in the provision of sport and the impact of austerity has provided a rich foundation to current volunteerism research (Morgan, 2013). Therefore volunteering in hard to reach areas is becoming a significant element to sporting and physical activity provision (Scott, 2011), thus in essence becoming a considered area for social research.

With onus on the increase of volunteerism within the sport and community sector within policy and strategies, barriers to volunteering and disengagement have been explored. Although statistics show a significant proportion of people are actively engaged in volunteering, it has been paradoxically highlighted through a contextualisation of academic literature and volunteering research that the engagement of ‘harder to reach’ communities into sport volunteering is challenging in itself (Scott, 2011; Blackshaw & Long, 2005, Cabinet Office, 2010, Sport England, 2011, Eley & Kirk, 2002, Institute for Volunteering Research, 2013). As previously

discussed the traditional profile befitting the community sports volunteer suggests those who have higher socio-economic standing and with substantial expendable leisure time (Stebbins, 2001). It is this volunteer who underpins the ideal of volunteering in policy and those who volunteer for leisure which is subsequently reflected of the work of Stebbins (2001, 2013), Rojek (1995) and Nichols (2005), who identify volunteering as a chosen leisure activity in its own right. It is therefore apparent that social policy aimed at increasing social capital is a directive to those who do not do not fall within this habitus.

As a means of providing distinction and relation between the sociological concepts of structure - agency, Bourdieu developed the notion of habitus. Habitus is a somewhat ambiguous concept, which refers to the physical embodiment of cultural capital. In this sense, cultural capital refers to a wealth that is non-material, such as, networks,influence and knowledge (Rojek, 2005) As a Bourdieusian framework, cultural capital is defined as a way in which individuals and elite classes control the way in leisure, taste and distinction are defined (Bourdieu, 1984). Habitus in this context is distinction between a range of social groups and thus defined by class (Bourdieu, 1990). Habitus refers to the inherent dispositions due to our class that we possess due to the experiences we have. Placing emphasis upon the values of 'capitals' as they were a 'resource to be exploited, combined to constitute the categories of distinction which both produce and reproduce social class divisions.' (Spracklen, Long and Hylton, 2015: p3). Within sport and leisure, Veblen's identified the symbolic expression of leisure pursuits as one of habitus (Rojek, 1995). Thus those within a specific habitus will pursue leisure activities that are within their field.

The community benefits developed from voluntary action are described and summarised in terms of acquiring social capital, social cohesion and civil society. Although these terms are somewhat interrelated, social capital is suggested as being an essential of volunteering and volunteerism. Literature characterises social capital as a contextual characteristic that defines civic engagement, mutual obligation and trust amongst individuals and their communities (Jarvie, 2003). Lin (2006) suggests that social capital cannot be independent of social networks and community, however, networks do provide access to the resources that constitute social capital.

A plethora of research has evidenced the notion that sport and physical activity can build social capital through community participation (Walseth, 2006; 2008; Perks, 2007; Hayton, 2016; Jarvie, 2003; Harvey, et al, 2007). However, communities in areas of socio-economic disadvantage tend to be dependant upon forces they have little to no control over.

In the previous two decades, policy makers have shown a developing interest in using social capital as a tool within social and public policy (Doherty, 2009, Harvey, *et al*, 2007), with social capital underpinning policy discourse and political rhetoric. With Coalter (2010) arguing that social capital is 'overly romanticised, communitarian generalisation' (p.1386). However, it is through a contextualisation of Putnam's (2000) *Bowling Alone*, sport and social policy and the implementation of community sport development have increasingly incorporated notions pertaining to social capital acquisition. Cuskelly, *et al*, (2007) suggest key indicators in the acquisition of social capital include, formal and informal membership or affiliation to a group, social participation and civic engagement. Therefore volunteering in this context is instrumental in the development of social capital, the contribution to civil society and

a means to social cohesion in terms of citizenship. Putnam argued that the demise of social capital was resultant of weakened communities, civic culture and a decline in prosocial actions as defined in volunteerism. Developing this further Jarvie (2003) suggests that those who participate in such sport, reinforce social capital and have positive perceptions of community, with concepts of communitarianism. However this highlights the challenge of engaging those who are not civically engaged in a society which is filled with notions of individualism and physical inactivity (Hills, Street and Harris, 2014).

With a plethora of studies into social policy and sport development it has been highlighting that volunteering opportunities in essence increase social capital (Kay and Bradbury, 2009; Delaney and Keaney, 2005). Although Putnam's interpretation of Bourdieu's notions of capital have been critiqued (Evers, 2003; Portes & Landolt, 2000), they continue to remain the premise for policy and social agenda. Juxtaposing Bourdieu's concept of capital being that of individual development via social networks in different habitus, Putman's notions are significantly community centric, with ideals pertaining to civic engagement and societal development (Walseth, 2007). Fundamental to Bourdieu's theories of capital acquisition are notions of bridging networks between individuals of different socio-economic habitus. Putnam's adaptation of modern social capital is defined between '*bridging capital'*, in which social mobility is gained through network development and *'bonding capital'* focusing on communities ability to develop social cohesion (Harvey, *et al,* 2007). These notions of social cohesion and social mobility are inherent within sport and social policy and increasingly evidential when applied to volunteering roles in sport. Idealised notions of social capital within the sport and community sectors have be explored with literature

(Blackshaw & Long, 2005; Jarvie, 2003) and developing upon the work of Morgan (2013) it is suggested that the acquisition and power of social capital is thus dependent upon the socio-economic habitus of those residing in individual networks.

The distinct differences in these theoretical ideologies within the process of capital acquisition are often deemed as either/or when defining social capital. For Walseth (2007) there are distinct differences when exploring notions of bridging and bonding capital within sport and community development intervention. However Morgan (2013) suggests that austerity has removed the principal ideals of social capital investment from that of education and social mobility to that of contributing to communities. When applying such notions to volunteering, Nicholson & Hoye (2008) argue that there are somewhat idealised assumptions that volunteerism will create social mobility and suggest modern interpretation of social capital are driven by active citizenship ideals. Developing this further Nicholson, Brown and Hoye, (2014) question community sports ability to develop and maintain social capital through the exploration of perceived social support networks and again suggest assumptions around volunteering providing social network bridging opportunities. Therefore suggesting the implementation of sporting strategies, underpinned by notions of increasing social capital is a somewhat contested and positivistic ideal (Nichols, *et al,* 2012). Pertaining to the notion of social capital being an objective within policy documentation it remains however to have a vague lack of precision in its measurements and meanings '*in sports role in its development*' (Coalter, 2007: 49-50)

2.19 Social Policy and Communitarianism

Consistent with the notion of community, the development of nurturing social capital and civil society has been the premise of social policy. There appears to be a symbiotic

relationship between the values that underpin volunteerism and that of communitarianism. Communitarianism offers a pure source for social values, mutuality, social networks and devolved power to communities, emphasis on family and kin and the rejection of individualism (Etzioni, 1995; Etzioni, 2014; Leadbeater, 2002). Primarily it could be suggested this project essentially draws upon ideals of community, social cohesion and communitarianism, being significantly driven and led by volunteering, social action and community. The premise of such altruistic actions are primarily linked to ideals of social thinking and communitarianism (Gallant, 2010). With communitarianism underpinning social identity, this provides a psychological premise for collective actions (Thomas and Louis, 2013). Communitarianism has been the basis of social and political discourse, a somewhat recent example being Cameron's Big Society (Sage, 2012). Jarvie (2003) proposes three distinct categories for communitarianism, of which social, political and vernacular communitarianism are explored. Social and vernacular communitarianism are fundamentally explore the values and ideals of social movements, political communitarianism is primarily when developing understanding of policy. Therefore for the purpose of this paper the development of political communitarianism will be explored contextualising Jarvie (2003) and Etzioni (2014) studies of political communitarianism. The basis for political communitarianism relates to the principles and policy ideals that underpin political arguments to propel the notions of communitarianism in political agenda. The purpose of such policy not only lends itself to the liberal societies conceptions of social cohesion and common good (Etzioni, 2014), but the regulation of public policy for education, welfare and the ownership of professional sport (Jarvie, 2003).

As a normative ideology, previous literature has explored the dualism and dichotomy between communitarianism and liberalism (Etzioni, 2014; Schilcher, 1999). With

communitarian notions being influenced by the need for social order and civil action, Etzioni (1995) offers balance to these ideals, suggesting the more social order within society, the more individual autonomy should be promoted. However, contextualising the work of Galston (1998), it is argued that neither communitarianism nor contemporary liberalism should take precedence, suggesting that contemporary liberalism presupposes an incoherent ideal of the individual as existing outside of society as opposed to embedded in society. The dichotomy of communitarianism and liberalism is reflective of the juxtaposing nature of Putnam's bridging and bonding capital, in which civic action can be seen as altruistic and/or as instrumental. Herewith communitarian ideals sit with bonding capital and individualism with ideals of social mobility, bridging and instrumentalism.

2.20 The Realities of Community, Volunteerism and Social Capital

Political discourse in recent sport policy (such as *Creating a Sporting Habit for Life*, Sport England, 2014) has had a rhetoric pertaining to community, volunteerism and social action (Kay and Bradbury, 2009; DCMS, 2012). For politicians and policy makers alike, community is a remedy for the 'broken' society spoken about within political rhetoric. Such rhetoric is evident in Cameron's Big Society (as discussed previously) and in policy such as *Towards an Active Nation* (Sport England, 2016). Such policy places emphasis on increasing volunteering and civic action within local sport delivery. However it should be considered that social action implies the existence of existing social groups, which in our ever-changing, insular societies may pose as a barrier (Werhane, 1993). It appears the tacit over-simplicity of community as an ideal is somewhat underestimated and challenges in community engagement are at times overlooked by policy makers. For the previous 25 years the work of Putnam has

influenced policy and emphasis has been placed upon the development of communities and social capital. Such capital has shifted away from the Bourdieusian notion of social mobility and more towards the civic engagement and bonding of communities.

When exploring community definitions within policy, it is suggested they are somewhat idealistic, homogenous and target geographical communities. Paradoxically creating an exclusivity and ideals surrounding those who reside within such communities and those who are outsiders. In developing this ideal of community it essentially excludes outsiders and in doing so poses as barrier when attempting to achieve participation outcomes. Furthermore academics have highlighted a shift in which the sense of community has become weakened and thus civic culture declined (Anderson, 1983; Bauman, 2001).

With an increased emphasis in consumption, gesellschaft and individualism in leisure, it is apparent there is a social crisis with regards to notions of community (Arai and Pedlar, 2003). Drawing on Hobsbawm's (1995) critical observation of community, he suggests 'Never has the word "community" used more indiscriminately and emptily than in the decades when communities in the sociological sense became hard to find in real life' (p428). Suggesting the community of today is increasingly likely to be one of certain elusiveness and is far removed from the traditional and orthodox concept in the sociological sense.

With community being central to notions of social capital, communitarianism, volunteerism and bonding social capital, the question of what is community requires addressing. Essentially for communitarians, community is the framework of social relationships and a feeling of belonging amongst people with particular characteristics

(Krieger, 2000). Community is beyond a geographically bound context, community is conceptualised as a psychological entity, evoking feelings and emotions (Omoto and Snyder, 2002) The ideology of community is fraught with contention and criticised for being relative, exclusionary, sentimental and nostalgic.

Scholars such as Bauman, Cole, Blackshaw, Anderson and Cohen have examined and critiqued the notion of community. Consensus determines community is socially constructed and affective in content and no more than a feeling, imagined and drawing upon nostalgia. Jarvie (2003) applies the theories of Anderson (1991) and Krieger (2000) to explore the concept of imagined communities, suggesting emotively *'imagined communities are political and social symbols*' to those it includes and those excluded (p.141). Blackshaw (2016) argues that community can be a dichotomy of warm and welcoming and one hand and inhospitable and destructive on the other. Bauman (2005) associates the word community to a good feeling, one that insights feelings of sentimentality and nostalgia. However, drawing on the development of consumerism and privatisation, society turned towards greater individualisation.and in doing so, society shifted increasingly to *Unsicherheit* (a sense of uncertainty, insecurity and lacking in safety). For Bauman, in a liquid modern world, the yearning for togetherness manifests itself in the development of episodic community to escape the *Unsicherheit*. Bauman argues that this is not a re-emerging of the traditional *Gemeinschaft* community, but one of peg communities that are used essentially to fill a gap. 'That community is nothing more than nourishing antidote to a thoroughly individualised life'. (Blackshaw, 2016; p.132).

Regardless of these notions and subsequent barriers in modern day communities, community remains the basis of social intervention and development. Applying the

somewhat symbiotic relationship between community paradigms and volunteerism, community development and communitarianism is often linked through the notion of civic action. Omoto and Packard (2015) suggest that in order for an individual to engage in the act of volunteerism, they must therefore demonstrate a psychological sense of community. It is somewhat unlikely that the act of volunteerism is undertaken without pre-existing bonds of social obligation towards one's community.

From a postmodern perspective, community is a fluid entity and can consist of ad hoc communities and other disposable substitutes which provide a sense of security. Subsequently, Blackshaw (2016) suggests that "community is perpetually lost and found in modern societies" (p.129). Thus the orthodox, traditional sociological perspectives of community that is envisaged, gives the impression of community being a fixed entity.

Developing upon this the postmodernist approach to community it is not reflected in the policies and the ideals of funders. Although there is a neo-liberalist approach to social and sports policy, this is not reflected in the top down ideals of funders and governing bodies. Top down provision delivers a romanticised perspective from funders and NGB's who make these policy and funding decisions. However it is suggested that those within these positions rarely come from the disadvantaged communities targeted by such policies. Furthermore it is argued that the language used within policy and disadvantaged communities is based on ticking boxes, reaching specific demographics, based on the premise that an individual or community being static

2.21 Literature Review

The following section explores research studies that have examined community based volunteering in sport and / or physical activity intervention. This section will identify the effectiveness and impact of volunteers in a community setting using the identification of longitudinal studies and in some instances, systematic reviews.

Examining volunteering in a community based, physical activity intervention, Varma, Tan, Gross, Harris, Romani, Fried, Rebok and Carlson (2016) evaluate an intervention for older adults. The intervention recruited *n=123* participants aged >60 from a nested objective physical activity trial. Although the socioeconomic demographics for these research participants were not specified. Participants were in a school system with volunteers to facilitate a walking intervention, measuring steps per day. As a sex-stratified random control trial, the differences between intervention and control groups were measured at intervals of 12 and 24 months applying a linear mixed effects model. The premise of this study was to examine and better understand how civic engagement, may impact on the maintenance of walking and physical activity. Walking activity was measured using step activity monitors, at 12 months there was no significant intervention effects on walking activity in either sexes. At 24 months there was still no significant difference in walking activity in men, however women in the intervention group increase their activity by an average of 91% more than those in the control group. Therefore emphasising that community based volunteering has the ability to increase physical activity amongst older women.

Taylor, Panagouleas and Nichols (2012) examine national survey data to identify the nature of volunteering in sport, identifying shortcomings and decisions to volunteer. Drawing on data gathered through differing methods of measuring volunteering activity

from between 1997 - 2008, this paper determines the variations in the expected volunteering rate by gender, age, ethnicity, education and income. Many of the surveys conducted for this study identify the characteristics of those that volunteer. The following findings from these surveys are explored in box 2.4:

Box 2.1 UK National Survey Data for Volunteers 1997 - 2008

- The National Survey of Volunteering in 1997, highlighted that of the *n=193* volunteers men were twice as likely to volunteer in formal sports volunteering roles and young people have taken part in sports-related volunteering. This survey reported that 12.3% of this group were active, formal volunteers. Taylor et al, highlight that there was not a consistent variation in sports volunteering and socioeconomic class. An additional study *n=1486* of randomly selected adults were interviewed using face to face, computer assisted interviews. This survey examined both informal and formal volunteering.
- The Citizenship Survey (2001) reported that 13% of the volunteers participating in this study volunteered in sport. A sample of *n=10,015* were interviewed in this survey using computer assisted face to face interview. This survey examined the prior 12 months volunteer involvement of this group, identifying the sport and exercise activities. This includes all aspects of the volunteering process, such as types of activity, applying for funding, committee memberships and organising events. It was identified that a higher percentage of men volunteered in sports in comparison to women. Voluntary practice fell with age and volunteering was higher amongst white people than black or Asian ethnicities.
- The Sports Council (1996) identified club based sport and exercise volunteers from 47 clubs, drawing on data from *n=353*. This research was specific to formal sports volunteering, examining the main roles of the club, years of volunteering contribution and hours offered each week. These clubs were represented by appropriate NGBs, systematic volunteers tended to be employed males, 65% were aged 35 - 59. These volunteers contributed an average of 4.6 hours per week to sports volunteers
- In a two wave study of community volunteering across all sectors of sport, Sport England (2002) examine volunteering using a) *n=8458* randomly selected sample from adults. This formal and informal volunteering was examined. 12 months prior engagement was explored in face to face interviews. Organisational questions to determine sport and youth organisational input was examined. It identified that 40% were aged 35-59, 70% were in full time paid employment, contributing 4 hours of volunteering per week. Study b) examines formal sports clubs, examining a sample of *n= 308* sports volunteers from 51 sports clubs. This data was gathered using face to face interviews and all volunteers participated in formal volunteering. This study aimed to identify the volunteer's role in the sports club, the number of years of volunteering and hours per week volunteered. It was reported that 75% were active formal volunteers for sports organisations, contributing an average of 3.5 hours per week.

The Active People 1 (2006 - 2007) draws on a sample of *n=363,724* randomly selected adults, although this surveys primary focus is participation in sport, it examines further engagement through voluntary action. Data was collected through interviews, conducted by phone. This included exploration into formal volunteering for sports organisations and community voluntary activity from previous 4 weeks. This study highlighted a rise in younger volunteers aged between 16-24 years, reporting a decrease between the ages of 25 - 34 years and an increase in volunteers aged between 35 - 44 years. It additionally reported that white people are more likely to volunteer than people from other ethnic backgrounds. Furthermore, those who were in the middle to upper socioeconomic quartiles were twice as likely to volunteer as those in lower socioeconomic quartiles.

Using this information Taylor, *et al*, identify that within the time given to sport volunteering, there are significant variations by gender, age and employment status however not by education and income. It is reported in this analysis of survey data that there is a policy dilemma which continually targets those most likely to volunteer and contribute their time, thus reinforcing extant inequalities in sport volunteering

In a similar study of community based, physical activity intervention, Tan, Xue, Tao, Carlson and Fried (2006) examine an intervention placing older adults in a volunteering capacity, into a school environment. The premise of this intervention was twofold, aiming to improve academic outcomes of children and increasing physical and social activity of volunteers. Tan, ***et al's***, report the change in physical activity levels amongst the participants of this intervention. Volunteers were aged between 59-89 years of age, 96% were of black ethnicity, 94% female and were from socio-economically disadvantaged communities. The hours in which the volunteers had contributed to the intervention was >15 per week. These volunteers were randomly assigned to a group or a waiting list control group. At 4-8 month follow up the assigned group reported a 53% increase in activity compared to baseline. Whereas it was identified that the control group reported a 16% decrease in activity. It was highlighted

that those who reported low activity at baseline, in the intervention group had an average increase of 110% increase in physical activity at a 12 month follow up. It is argued by Tan, *et al*, that the results of this study indicate that a high intensity volunteer programme, designed to promote health, can lead to significant increases in physical activity of inactive older adults.

In an ongoing study, Foy, Vitolins, Case, Harris, Massa-Fanale, Hopley, Gardner, Rudiger, Yamamoto, Swain, Goff, Danhauer, Booth and Gaspari (2013) examine the benefits of prosocial behaviour in an intervention aimed at increasing activity and community engagement. In a randomised control trial designed to compare the effects of a 12 month intervention amongst older adults. A total of *n=300*, mixed genders, aged >55 years or older were involved in either a healthy aging control intervention (*n=150*) or a prosocial behaviour physical activity intervention (*n=150*). This intervention incorporated structured physical activity session, cognitive behavioural counselling and volunteering opportunities in its delivery. Questionnaire data was collected at 3, 6 and 12 month intervals. Primary outcome physical activity was assessed by Community Health Activity Model Program Questionnaire and secondary outcomes measures included physical function and health related quality of life assessment. By incorporating prosocial behaviour and volunteerism into this physical activity assessment it has been highlighted the benefits. This research aims to provide evidence for volunteering to motivate physical activity.

Lowther, Mutrie and Scott (2002) examine the benefits of volunteer involvement in a physical activity intervention, exploring a 1 year intervention in socially and economically deprived communities. This evaluation was twofold and included a fitness assessment and an exercise consultation programme. 3000 people invited to

volunteer in either intervention programmes, mean aged 40.9 +17 years SD+, 64% (*n=235*) were female, 36% (*n=134*) were male. *n=225* volunteers were allocated to the fitness assessment and were randomly assigned to either an experimental group or a control group. *n=145* volunteers were assigned to the exercise consultation and were similarly assigned to groups. Physical activity was measured at baseline, 4 weeks, 3, 6 and 12 months (using the Scottish Physical Activity Questionnaire). Those not regularly active demonstrated significant increases in physical activity at 3 months, activity was maintained at 6 months and had decreased at 12 months in the fitness assessment. Lowther, *et al*, reported that those that received exercise consultation significantly increased activity after 1 year. Compared to the fitness assessment participants that demonstrated significantly more regular activity, those who had volunteered in the exercise consultation had significantly increased long term adherence than those receiving a fitness assessment.

Cuskelly and O'Brien (2013) explore the transitions of players within sporting organisations to becoming volunteers. The premise of this research was based upon Nichols (2005) suggestion for the requirement of further research, identifying and understanding the motivations that underpin their involvement. Drawing on semi-structured interview data gathered from 6 community sport organisations, 12 interviews were conducted with volunteers who had gone through the process of becoming volunteers following engagement as a player (7 male / 5 female). The volunteers in this study were involved in sport for >20 years, ranging from 20-64 years of age, (mean age 30 years). These volunteers had subsequently developed full volunteering role. Themes were developed using a continuity theory framework. Volunteers in this domain had an existing connection with the players and other volunteers, it was within this that a sense of identity had been developed. It was

identified that the motivation to for this group of volunteers, was an extension of their involvement with their sport and to maintain continuity of the relationships built over their engagement. It was this continuity of relationships that further deepened a sense of belonging. It is this complex interplay of belonging, pressure to maintain roles and altruistic motivations that underpinned the continuity of this volunteering action.

Cox, Cyarto, Etherton-Beer, Ellis, Alfonso, Clare, Liew, Ames, Flicker, Almeida, LoGiudice and Lautenschlager (2017), evaluate a community, volunteer led intervention aimed to increase physical activity in older adults. Examining the impact of a community intervention, within a community living group aged between 60 - 85 years of age, this research aimed to determine whether a home-based, volunteer led intervention can significantly increase moderate intensity exercise to >60 mins per week. Using a randomised control trial framework, all participants received an individually designed programme, the intervention group received support from volunteer mentor support (n=80 peer volunteers). The control group were issued with standard education workshops. It was reported that the attrition rates for these groups varied over a 12 month period 27% to 50%. After 16 weeks the volunteer led group had an increase in physical activity 62%, whereas the control group had increased by 17%. This reported in this research that those who received support from peer mentor volunteers had adhered to the intervention and had significantly increased activity rates.

Omoto and Packard (2016) explored two studies examining the psychological antecedents of volunteerism and the constructs that underpin the psychological sense of community. In study 1 *n=140* retirees completed questionnaires to measure empathy, self-esteem, generativity and their psychological sense of community. Study

2 *n=427* psychological sense of community and measures of environmental concern and connectedness were measured to predict environmental volunteerism and activism. Using a 23 item sense of community index, participants were able to provide a score that reflected their sense of community. The results from study 1 suggested that participants of this study were "*well-adjusted, concerned about and connected to others*" (p.277). 20 volunteers did not report any organisational volunteer involvement, 21 reported 0 hours of volunteering per week. However in total 80% had suggested active volunteer engagement and reported between 6-7 hours of voluntary time per week, in which participants expressed a connectedness with their communities and environmental activism. Omoto and Packard suggest that using a psychological sense of community measure was a reliable predictor for volunteerism. Arguing the extent that an individual feel connected to their community the greater volunteerism is expressed and time devoted to community activism.

Burgham and Downward (2005) examine the factors that affect volunteer decisions. Drawing on literature examining sport and exercise participation, this paper explores the decisional processes undertaken by the sport and/or physical activity volunteer. Using a case study of swimming, Burgham and Downward, identify that there are multiple variables that influence the volunteering processes. Based on an empirical perspective the volunteering decision can be developed from the interactions of others, their socioeconomic characteristics and degree of experience in sport. Developing a framework to examine the decisional process of volunteering, it is highlighted that the decision to volunteer emerges sequentially from the decision making influences and the ability to commit time to volunteer. Drawing on questionnaire data from *n=126* volunteers, it was determined the characteristics of the volunteers, their socioeconomic status and their involvement and duration in their

sport. It is suggested that the decision to volunteer and then to commit time to volunteering are made explicitly. It is argued that there are three primary variables that are fundamental to the initial decision to volunteer. These are; Individual/social Characteristics (age, gender, ethnicity); Economic Characteristics (income, hours worked, graduation) and Sports Characteristics (participation, family involvement). These influence their decision to volunteer and subsequently the extent and time of voluntary action.

Harris, Nichols and Taylor, (2017) analyse national survey data from the Active People Survey from between the years 2005 to 2015 to identify participation in sports and volunteering activity in sports clubs. This analysis draws on a sample of *n=160,000* participants with the age of >14 years of age. This data includes data on both a national and local level, identifying rates of sport participation, club membership and voluntary action in sport. The Active People's Survey The findings of this analysis has demonstrated the continued trend from formal, traditional and structured team sports to an increase in individualised sport and lifestyle physical activity. Harris *et al*, suggest that this analysis highlights there has been a significant decline in organised sport and a reduction in participation in organised formal sport. This structured delivery of sport has been replaced with an individualistic participation in which an individual is engaged in what is described as '*lifestyle pursuits'* (p.294). Additionally reported in this analysis is the decline in civic activity which can be seen to flow from the values associated with that of a post-modern society. This research suggests a shift in values whereby there has become a greater importance on independence, autonomy, hedonism and less importance upon traditional conformity and ideals that sustain the stability of society. It is suggested that this individualisation in community sport engagement reinforces the evolutionary change of identity and civic engagement. In terms of

volunteering and voluntary run community sports, this analysis identifies two specific challenges that impact "*policy targets of growing community sports participation"* (p.303). It is highlighted that the shift in sports participation challenges the viability of club based volunteering. It highlights a shortage of community volunteers and increases in episodic volunteering. Furthermore it is highlighted that this impacts upon the ability of those that do volunteer to have the capacity to grow participation.

Baranowski, Anderson and Carmack (1998) undertake a systematic review of 25 intervention studies and 45 correlational studies with the aim of applying the mediation variable framework to assess the roles adopted by participants and volunteers. Behaviour interventions for promoting physical activity have worked with the intention of motivating participants to uptake physical activity alongside volunteering within their communities. It is suggested in this study that behavioural and psychosocial theory accounts for >30% of the variability in activity behaviours. It was reported that those that were motivated enough to participate in community physical activity were often motivated to volunteer. Interventions additionally helped those volunteers to maintain and / or increase their physical activity. This being proved, it is suggested that to increase effectiveness of physical activity intervention, further physical activity research should develop a better understanding of the predictors that increase physical activity and community volunteering.

In a review of literature, Penner (2002) examines influences sustained volunteerism, identifying the relationship between dispositional variables and volunteerism. Such dispositional variables examine the personality traits, religiosity and activities of those who volunteer, drawing on online survey data. Volunteers who completed the survey was *n=1100*, 76% were active volunteers and reported having worked as a volunteer

in the previous 12 months. 90% were white, 77% were female. 48% were graduates and in a higher socioeconomic quartile. 60% identified as a practicing Christian, whereas 15% belonged to other religions. Religiosity was a dominant personality trait identified in this study, 45% of respondents described themselves as extremely religious. Developing a model to identify sustained volunteering, Penner identifies that demographic characteristics, personal belief and values, prosocial personality, alongside situational factors, organisational attributes and practices contribute to sustained volunteering and enhance volunteerism.

Although a somewhat dated piece of research, Paolicchi's (1995) examination of volunteering narratives provides insight to the importance of examining volunteering processes in a community setting. Using a multi-method approach, n=94 participants were required to complete a questionnaire. 64% male and 36% female, aged 14 - 80, within varying socio-economic demographic groups. Interviews were conducted with *n=12* community volunteers (8 male and 4 female), to explore and analyse their social and historical narratives. The results of the questionnaire was to identify the demographic data of the volunteers within that community. It was reported from this data that the volunteers worked in varying professions, of which 38 identified themselves as manual workers, 20 were students, 7 were unemployed and 2 were retired. It was reported that 31 volunteers engaged in volunteering due to family involvement. The length of engagement in community volunteering highlighted that 51 of these participants had >5 years of volunteering experience. Drawing on the findings from qualitative data, Paolicchi suggests that this population of volunteers search for co-construction and individual meaning and goals at a collective level. This is hypothesised as a core psycho-social construct, which underpins volunteerism. It is reported in this study that community volunteers cannot be defined by the commonality

of personality or characteristic traits but are joined by a common culture based up on the similar life experiences. Within this milieu, the volunteers were driven by shared moments, motives and obligations maintain this altruistic culture.

2.22 Summary and Conclusion

Sport volunteerism and the active civic engagement of a volunteer delivers a significant proportion of sport, physical activity and leisure throughout the UK. The growing number of volunteering has increased due to the effects of austerity and the neo-liberalist agenda. It is evident that the sports sector is significantly reliant on the community volunteer to deliver aspects of physical activity that are underfunded within the private sector.

Literature has highlighted primary theories pertaining to community volunteering in areas of deprivation. The social theory of volunteerism, has identified concepts of the community volunteer negotiating social capital, human capital and habitus. Contextualising literature the development of bridging and bonding capital is centric to that act of volunteering.

Through an exploration of volunteering, volunteerism and communitarianism, it is evident that the policies and strategies that provide infrastructure to community sport, envisage community as a static entity. However, through the examination of literature volunteerism, community is a central theme. When examining the concept of the community volunteer and postmodernism, it is evident that community within this view is somewhat fluid, however there is a considerable gap between the box ticking prerequisites of current policy and the fluid, modern approach to community. The rhetoric that is used based around specific demographic groups is not reflected in a

postmodern perspective of community. From an examination of literature it appears that the development of community can only be achieved once policy alters its perspective on a static, measurable entity or individual to one that is fluid and open to negotiation.

Chapter 3 - Methodology

3.1 Introduction

Wolcott (2001) refers to methodology as the 'underlying principles of inquiry' whereas methods are the specific practices of data collection used in research (p.93). Expansive definitions are developed by Bryman (2008) and Gomm (2008) who suggest methodology is an inquiry approach which is underpinned by specific theoretical frameworks. Therefore, methodology refers to the philosophical assumptions and conceptual frameworks that are used as a basis for academic enquiry.

Throughout this chapter the methodological approach adopted for the evaluation of the Black Country in Motion intervention will be defined. Through the development of a pragmatic approach to the research, Section I of this chapter will outline the benefits of such an approach and the theoretical frameworks used to explore the evaluation of the BCiM intervention. Furthermore exploring how the convergence of data from a mixed methods approach has enabled the evaluation to answer the research question. Section II will explore the process and outcome evaluation designs of this study. Therefore this chapter sets out the methodological approach and research frameworks used to guide this study. In the following chapter (Chapter 4), details of data collection are provided.

3.2 Philosophical Paradigm - The Paradigm Debate

Bryman (2008) outlines that there are two traditional, contrasting philosophical positions regarding knowledge and the construction of knowledge. Described in relation to their ontology, epistemology and methodology, these are the positivist and constructivist/interpretivist paradigms (Bryman, 2008). Paradigms are essentially a set

of basic beliefs and world views that define the nature of the world, an individual's place in it and the range of "*possible relationships to that world*" (Sparkes and Smith, 2014: p.9). Bogdan and Biklin (1998) proposed a paradigm can be explained as a loose connection of logically related assumptions, concepts or propositions that orientate thinking and research.

Ontology refers to assumptions created about the nature of reality and the way the world is (Danermark, Ekstrom and Jakobsen, 2005). Ontological assumptions from a positivist paradigm suggest there is a single objective reality and universal truths exist and are independent of time and place (Denzin and Lincoln, 2011). Contrary to this the constructivist paradigm offers multiple realities -explain a bit more (Bryman, 2008). Epistemology refers to a branch of philosophy that explores the origins, nature and limits of human knowledge and the assumption about what we can know about reality (Sparkes and Smith, 2014). The epistemological assumptions underpinning the positivist paradigm is that the researcher can explore phenomenon in an unbiased manner, without influencing findings. The positivist approach suggest the researcher and phenomenon are independent entities. Whereas in the constructivist paradigm, the researcher is in essence, a part of such reality, in that the reality constructed, with reality constructed through the quest for knowledge (Gomm, 2008). Sale, Lohfeld and Brzil, (2002) suggest the researcher and the phenomenon or object of study, are interactively linked, thus the findings of inquiry are created within the context of the situation.

In research, these two distinct methodological paradigms are often quantitative in the positivist paradigm and qualitative in the constructivist/interpretivist paradigm (Denzin and Lincoln, 2011). As a broad base, quantitative research involves hypothesis testing

and an objective and deductive approach, whereas qualitative research encompasses a contextual, inductive and subjective approach (Bryman, 2008).

There has been a long standing debate discussing the advantages and disadvantages of using either quantitative or qualitative research methods, resulting in what could be essentially described as a paradigm 'war' (Feilzer, 2010). Tensions emerged as debate between these two distinct paradigms often led to the rejection of one paradigm and methodology over the other (Guba and Lincoln, 1994).

3.3 Mixed-Methods and Pragmatic Approaches to Research

Mixed methods were developed, as a way of acknowledging the value of combining both quantitative and qualitative methods to explore phenomenon and answer more complex research questions. With the development of mixed methods research, it has been considered by leading authors such as, Creswell, Plano-Clark, Teddlie, Tashakkori and Greene (to name a few), that the combination of both paradigm approaches pervades all aspects of research not just the methods of data collection used (Creswell, 2011; 2014; 2015). The development of mixed methods and the combination of methodologies has with it, bought a shift in paradigms and thus the development of a pragmatic paradigm approach. Formalising the pragmatic approach, Morgan (2007) draws on Kuhn's (1970) concept of paradigm shifts to explore a new found pragmatism in the research methodology. Calling for recognition and arguing the benefits of combining quantitative and qualitative methods, Morgan provides a philosophical basis for research. Arguing the freedom and autonomy of the pragmatist researcher's ability to not view the world as an absolute, Morgan outlines that pragmatism is not committed to specific systems of philosophy and reality, and is engaging in the assumptions of both quantitative and qualitative dualistically. Within

social science research, the pragmatic approach is a new paradigm, contrasted with separate methodologies. Table 3.1 below highlights Morgan's framework, which deliberately avoids the philosophical debates of ontological and epistemological knowledge.

Table 3.1 – Pragmatic approach versus Quantitative and qualitative approaches

	Quantitative Approach	Qualitative Approach	Pragmatic Approach
Connection of theory and data	Deduction	Inductive	Abductive
Relationship to research process	Objectivity	Subjectivity	Inter-subjectivity
Inference from data	Generality	Context	Transferability

Source: Adapted from Morgan (2007, p.71)

Morgan's framework suggests abductive reasoning, which in essence moves between deduction and induction, primarily through devising theories and then challenging theories through action. Pragmatic approach to research sees qualitative research feeding into the quantitative and vice versa. Contextualising Morgan's framework further the concept of inter-subjectivity defines the relationship of the researcher and the research process by pragmatically offering middle ground between objectivity and subjectivity. The notion of transferability rejects the ideals of context specific qualitative results or the generalisability of quantitative results to every setting.

However a pragmatic evaluation approach to mixed methods research, has been subject to distinct critique (Giddings and Grant, 2007; Maxcy, 2003; Zimmermann,

2006). Some academics suggest the impossibility of moving beyond the paradigm debate, arguing the position between qualitative and quantitative methods is incommensurable (Johnson, *et al*, 2007). As highlighted by Denscombe (2008) it is suggested '*a danger*' when a '*what works*' approach is used (p.274). Further suggesting pragmatic approaches in essence are method centric and such strategies "*can damage the credibility of research design, implementation and reporting*" of mixed methods findings (Lipscomb, 2008, p.33). Furthermore developing Bazeley (2009) somewhat contentious debate pertaining to evaluative practice, it is suggested that mixed methods ability to determine how data is generated questions credibility. Bazeley (2009) argues pragmatic approaches within mixed methods research is inclined to represent principle and tactics to attain knowledge without an epistemology or defensible methodology. Furthermore Greene and Caracelli (1997) identify two issues which underline such pragmatic, mixed method approaches. Primarily what is appropriate between inquiry paradigm and inquiry practice in evaluation and secondly what characteristics of an inquiry paradigm are essential in design and analysis. Arguing that this approach rejects the extremist stance of the "purists" where inquiry is substantiated by the rigidity and historical view of paradigms.

According to Mackenzie and Knipe (2006) there is strength in this, as a pragmatic paradigm does not commit to any specific philosophical paradigm. Suggesting the pragmatist researcher specifically focuses on the 'what' and 'how' of the research problem. Furthermore Morgan (2007) argues the pragmatic framework to research is more than '*a mechanically superior way'* to tackling complex research questions (p.73). Developing this further Creswell and Plano-Clark (2003) argues that the pragmatic paradigm centralises the 'research problem', applying all approaches to understand and answer said problem (p.11). There appears to be a consensus

amongst mixed methods authors (Johnson and Onwuegbuziw, 2004; Tashakkori and Teddie, 2010; Morgan 2007; Creswell, 2011; 2014) regarding the adoption of pragmatist paradigm in research. In which the pragmatic paradigm provides an opportunity for varying methods, worldviews, assumptions alongside varying forms of data collections and analysis. It is argued within the academic milieu that as an alternative frame, pragmatism can be applicable to accommodate the diverse nature of dualistic research traditions within quantitative and qualitative research (Burke-Johnson and Onwuegbuzie, 2004). In doing so the researcher is able to employ quantitative or qualitative methods and more specifically methods are matched to the specific questions or elements of the research. Creswell (2014) proposes that the by making the research problem central knowledge can be derived using pluralistic approaches. Such methodological pluralism can be seen in mixed methods research as a basis for providing multiple data, methodologies and perspectives to answer the research problem. Hall (2013) further develops pragmatism as a diverse philosophy through the dichotomous exploration of classical pragmatism and neo-pragmatism, with emphasis upon Deweyan pragmatism in particular. It is argued by Hall (2013) that Deweyan pragmatism is considerably relevant in the discussion of credibility when evaluating mixed methods. Dewey's philosophical approach to pragmatism accomplishes contextualised sensitivity and in doing so identified a tangible process for inquiry and credibility in evidence (Biesta and Burbules, 2003; Dalsgaard, 2014).

The researcher's philosophical position supports the pragmatic approach. It is with this in mind that the following sections will identify the researcher's approaches and theoretical frameworks adopted to answer the posed research question using mixed method, providing a framework relating to a pragmatist paradigm. The research thesis involves the use of a mixed methods approach, as it incorporates the predetermined

tools to provide a standardised measure of physical activity, and in that it enables the researcher to answer a research question which involves assessing the efficacy, effectiveness and sustainability of the BCiM project.

3.4 Defining Mixed Methods

There is no consensus regarding the design of mixed methods research, in so several definitions have been suggested. Johnson, Onwuegbuzie and Turner (2007) listed 19 definitions of mixed methods to arrive at the following definition:

> "*Mixed methods research is the type of research in which a researcher … combines elements of qualitative and quantitative research approaches (e.g., use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the purpose of breadth and depth of understanding and corroboration"*. (Johnson, *et al*., 2007. p.123)

Developing this further, mixed methods research has been defined as an approach using a distinct design involving philosophical assumption and theoretical frameworks, using the integration of both quantitative and qualitative data (Creswell, 2014). As a method, the foci of mixed methods is the collection, analysing and mixing of both quantitative and qualitative data in a single or series of studies (Creswell, 2014).

Early development of mixed methods research saw a typology proposed by Greene, Caracelli and Graham (1989), describing the primary purposes of mixed method evaluation. Greene, et al, proposes five purposes of triangulation, complementarity, development, initiation and expansion. Contextualising the work of Greene, *et al*, further Bazeley (2018) outlines the following;

Table 3.2 – Bazeley's (2018) contextualisation of Greene, et al., (1989) purposes of Mixed Methods Evaluation

Increasing confidence in results by examining multiple sources of evidence in which findings converge (validity enhancing)
Designing better instruments and samples

Increasing depth and breadth of a study
Providing a more comprehensive understanding of the research topic
Initiating insights through contradiction and paradox

Bazeley (2018: p.12)

Of which each typology posed by Greene, *et al*, continue to be influential in mixed methods research, however the limitations of Greene, ***et al's***, typology are that these five purposes do not categorise all mixed methods research. However Bryman's (2008) content analysis of 232 articles generated 18 detailed schemes involving the use of mixed methods evaluation research. This comprehensive typology offers greater detail and explanation of mixed methods research.

Table 3.3 – Bryan's typology of uses of Mixed Methods Evaluation Research

Triangulation (or greater validity)	Refers to the traditional view that quantitative and qualitative research might be used to converge and thus enhance validity
Offset	Refers to limitations of both quantitative and qualitative and the combination of both offsets this, drawing on the strength of both
Completeness	Highlights the notion that a combination allows a comprehensive account
Process	Quantitative research providing an account of structures in social life but qualitative research providing a sense of process
Different research Questions	Refers to both methods answering different questions
Explanation	One research method used to help explain the findings generated by the other

Unexpected results	Referring to both methods ability in finding results that can be understood by employing the other
Instrument development	Qualitative research being used to develop quantitative tools such as questionnaires
Sampling	Refers to the approach used to decide on sampling of respondents
Credibility	The use of using both approaches to enhance integrity and credibility of research
Context	Referring to the combination is rationalised by qualitative research providing contextual understanding of results
Illustration	In which qualitative data illustrates quantitative findings
Utility (or improving the usefulness of findings)	Refers to the suggestion that a combination of research approaches will be increasingly useful to practitioners and others
Confirm and discover	This is the use of qualitative data to generate hypotheses and quantitative data to test them in a single project
Diversity of views	(i) Combining researchers and participants perspectives through a combination of approaches respectively and (ii) uncovering relationships (quantitative) and meaning (qualitative)
Enhancement (expansion)	Building upon quantitative/qualitative findings
Other/unclear	
Not stated	

Source: Bryman (2008, p.609)

Bryman (2008) develops a rationale or purpose of using mixed methods, stating the enhancement of methods was the rationale for a third of studies, increasing to 52.2%

once studies were assessed against the methods used. Enhancement (or expansion in reference to Greene, *et al*. 1989) were confirmed within Bryman's evaluation. Triangulation was disproportionate as a rationale with 29 studies citing triangulation however 80 studies using triangulation upon analysis. In this evaluation Bryman highlights the inconsistency between rationale and actual use of mixed methods. Suggesting insufficient details at the protocol stage resulted in a misalignment at analysis and the possible pursuit of different analytical strategies than originally planned. Although this may provide a basis against the somewhat laissez faire approach to mix methods, it reinforces the importance of a clear rationale for the use of this approach at the outset to ensure the correct use of data collection methods.

3.5 Designing Mixed Methods Studies

The design of any research study refers to the procedure for collating, analysing and reporting of findings (Bryman, 2008). When designing a mixed methods study, four variable factors are deemed important (Creswell, *et al*, 2003), and are closely associated with the purpose of study (Bazeley, 2018). These four factors are as followed;

- Implementation of data collection – which may be concurrent or sequential (either qualitative or quantitative first)
- Priority given to each data collection method – this may be equal priority or precedence given to one method over the other
- Stage of integration – integration which may be at the point of data collection, data analysis or data interpretation
- Theoretical perspective – which may be explicit or implicit

The dichotomous implementation of data collection in a mixed methods study can either be concurrent or sequential. Primarily, data collated concurrently are analysed in a manner which explores the degree to which the quantitative and qualitative findings converge (seen in triangulation studies). Sequentially collated data are

determined by the objectives of the study to which data is collected first (Bazeley, 2018). An example being, if quantitative data are initially collected using a large sample group, sequential qualitative methods are then used to explore aspects in further detail and vice-versa.

There are several factors which may influence the priority given to each data type, these include the understanding of data, strengths of the researcher or practical constraints to name a few (Creswell, 2015). However, priority needs to be decided of which equal priority or emphasis on one method over another is decided. Creswell, *et al*, (2003) suggest the decision of priority must be explicit at all stages of the research.

> *"Integration asks about the relatedness or degree of 'mutual illumination' (Bryam, 2007: p.8) occurring between different components of mixed methods study"* (Bazeley, 2018: p.7).

The degree of integration of qualitative and quantitative data varies between studies and it is desirable to be explicit to timing and nature of integration from the outset (Creswell, et al, 2003). In an early analysis of mixed methods studies, Greene, *et al*, (1989) identify that mixed methods research was impeded by the tendency for findings not to be integrated or integration occurred in a limited degree. Bryman (2008) later observed from his analysis of 232 mixed methods studies that integration remained a problem with only 18% of the studies analysed having been integrated analysis. To ensure genuine integration of quantitative and qualitative findings Caracelli and Greene (1993) suggest cross analysis, interpretation and reporting at varying stages in mixed methods research. Bazeley (2018) suggests the process of analysis integration is *"inherently messy and often exploratory, untried and emergent"* (p.70). Caracelli and Greene (1993) regard the nature of integration in mixed methods research by suggesting four strategies.

- Data transformation – one type of data is transformed into the other to permit the analysis of the data types together (e.g. qualitative data is coded into numeric data)
- Typology development – one type of places individuals into categories which are used to analyse other data.
- Extreme case analysis – in which 'extreme cases' from one data type are analysed further using other data types. This essentially explores explanation for such cases
- Data merging or consolidation – reviews both data types and then creates further variables for use in further analysis.

Creswell (2015) argues theoretical perspective is essential when considering the design of mixed methods research. In which researchers must consider if the research is driven by theoretical perspectives held by the researcher. The employment of transformative designs in mixed methods research may choose to advocate change at individual level or that of policy, in doing so a theoretical lens is explicit in the study. However, it could be argued that all research is influenced by a theoretical perspective.

3.6 Mixed Methods Study Design

Creswell (2003; 2015) has identified six mixed methods research designs (see table 3.4). Using the above criteria, Creswell's mixed methods designs (three employing sequential implementation and three employing concurrent implementation), and Bazeley's principles of integration the below table outlines the order and priority of data collection, stages of integration and theoretical perspective inclusion.

Table 3.4 – Mixed Methods study designs

Design Type	Implementation Sequence	Priority	Stage of Integration	Theoretical perspective
Sequential explanatory	Quant – Qual	Quant (usual); can be Qual or equal	Interpretation	May be present

Sequential explanatory	Qual – Quant	Qual (usual); can be Quant or equal	Interpretation	May be present
Sequential transformative	Either Quant – Qual Qual – Quant	Quant, Qual or equal	Interpretation	Present
Concurrent triangulation	Concurrent collection of Quant and Qual	Equal	Interpretation or Analysis	May be present
Concurrent nested	Concurrent collection of Quant and Qual	Quant or Qual	Analysis	May be present
Concurrent transformative	Concurrent collection of Quant and Qual	Quant, Qual or equal	Analysis (during interpretation	Present

Source: Adapted from Creswell (2015) and Bazeley (2018)

Having outlined mixed methods designs, the following section will explore the current frameworks in place for the evaluation of physical activity and health interventions.

3.7 Evaluating Interventions aimed to Increase Physical Activity

This section examines the frameworks underpinning the evaluation of the Black Country in Motion project in this study. The Black Country in Motion is a health promotion intervention aimed to use community volunteers to tackle physical inactivity. As with most real world research, health intervention may be subject to theoretical and practical problems in evaluation and the measurement of effectiveness. However, interventions for the treatment of physical inactivity require rigour in evaluation in order to establish a sufficient evidence base for further effective measure. The evaluation of community intervention is essentially assessing the value of an initiative, measuring the effectiveness of the intervention through its ability to achieving targets and objectives. With additional assessment of how processes of implementation contribute

to these outcomes or 'indicators', this research explores the reasons and purpose for change. However, measuring the impact of such interventions can provide a somewhat challenging task with regards to testing effectiveness measures. When evaluating community intervention, the measurement of impact can be multi-faceted, ranging from immediate outcomes or KPI's (key performance indicators) to longer term individual or societal impact. Moreover, evaluations for public health physical activity intervention are often poorly designed, with disproportionate foci on measures such as attendance and participant gratification taking precedence when exploring interventions aimed at increases in physical activity (National Obesity Observatory, 2012). In this instance, when discussing implementation in practice it is referring to the use of research to influence and disseminate practice to create positive social changes (Wanderman, Duffy, Flaspohler, Noonan, Lubell, Stillman, Blachman, Dunville and Saul, 2008). However, Brownson and Jones (2009) highlight that there are significant gaps between research and practice. Suggesting that to bridge the gap between research and practice, accessible research and evaluation should be part of health intervention and a shift away from the '*what'*, towards a greater understanding the '*how'* is needed (p.313). However public health models lead us to assume that public health intervention is effective, regardless of statistics indicating little decline in national inactivity (Wandersman and Florin, 2003). The increase in public health interventions, aiming to target physical inactivity and sedentary behaviours, has seen an increase in the concise review of efficacy, effectiveness and affordability of such interventions.

Primarily focused within public health and academic literature, it has been argued that there remains a gap between research and practice in the provision of health intervention (Glasgow, *et al*, 2003). Contextualising the work of Brownson and Jones

(2009) further it is argued that the evaluation of public health intervention should measure impact through the exploration of social and personal processes which assist physical activity adherence. With this in mind and the frequent disparities in the application of research findings (Public Health England, 2014), emphasis has been placed upon the importance of rigor in the evaluation of public health intervention. These notions have evolved and currently Public Health England and UK sport and exercise councils, provide a systematic review of physical activity interventions. However, it has been highlighted by the 2014 UK Government All Party Commission on Physical Activity that it is difficult to distinguish successful intervention due to the methods used. Furthermore, little evidence has supported effectiveness with less than 10% evaluated within the Promising Practice report (Public Health England, 2014). UK Active (2015) identified What Works for Local Physical Activity Interventions, in which interventions were measured against NESTA standards for evidence (NESTA, 2013). The NESTA standards for evidencing effective physical activity intervention provide a scale in which evaluations are measured for safe and robust application. The challenges of achieving this are highlighted in UK Actives (2014) report that identified out of 952 exercise interventions none met level 5 standards, with less than 1% meeting level 3. Whilst seen as effective programmes, from an academic perspective it was suggested that these evaluations lacked rigor in the methods, thus highlighting the requirement for more robust measures in evaluation.

3.7.1 Standard Evaluation Framework for Physical Activity

The Standard Evaluation Framework (SEF) for Physical Activity provides a consistent, standardised framework to measure the effectiveness of physical activity interventions. The SEF was designed in 2012 as a suite of evaluation frameworks to

promote consistent evaluation of physical activity, health and wellbeing intervention, the premise of which making monitoring and evaluation part of the intervention process. As an evidence base, the SEF has potential for successful scalability, specifically with the need to effectively improve health behaviours in those who experiences socio-economic and health inequalities. This framework was reviewed by Hanson and Jones (2017) who systematically analysed the 52 criteria pertained to the SEF. Upon analysis, Hanson and Jones highlight that the SEF does not provide opportunity to confidently establish '*what worked and did not work'* in the programmes evaluated. Therefore, there was limited potential for robust, evidence based evaluation which demonstrated intervention effectiveness. However, the SEF is used in the assessment of social return on investment (SROI) and in such can provide an evaluation of interventions ability for cost-effectiveness.

The impact of austerity and lack of public resources has led to the concomitant foci for value for money interventions. With funders of public health intervention requesting evidence of value for money, initiatives are expected to demonstrate both socio-economic efficiency and appropriate allocation of resources for those targeted in such intervention (Banke-Thomas, Madja, Charles and Van den Broek, 2015). SROI is often used to measure wider socio-economic outcomes, analysing singular monetary ratio. As a framework SROI methodology provides a somewhat 'holistic' approach to identifying value for money as it seeks to outline both social, economic and environmental benefits and seeks to account for the value of potential negative effects of intervention, programme, policy or organisation (Scholten, Nicholls, Oslen and Galimidi, 2006; Department of Health, 2010).

3.7.2 Randomised Controlled Trials

When evaluating the effectiveness of interventions, the randomised controlled trial (RCT) is the design of choice. Sibbald and Roland (1998) argue RCT are the most effective and rigorous way to determine if a cause-effect relation exists between treatment and outcome. The design of RCT is to ensure equivalent groups, thus minimising selection bias and involves random allocation to an intervention or comparator. The minimising of selection bias ensures that difference between the groups is attributed to the treatment received during intervention. Participants are typically unaware of the treatment they and comparatives are made between those who receive the treatment and those of a control group. However, the use of RCT in real world intervention research (outside of clinical study) is often problematic. This is due to (i) the difficulty of blinding people to the intervention they are receiving in a non-clinical setting, (ii) the outcomes may be long term, therefore making it difficult to measure changes due to limited evaluation periods and (iii) people who participate in trials are different to those who do not . Non-randomised controlled trials can often detect association between an intervention and outcome, however this cannot rule out a third factor linked to both intervention and outcome (Sibbald and Roland, 1998).

Experimental studies, such as the RCT, aim to establish causal relationships between phenomena through exploring the effect of variables. In the case of evaluation research, independent variables are the intervention and the effect constitute the dependent variable(s). When conducting experimental design resign research it is essential that any change can actually be attributed to the intervention. However, it is often difficult to determine what is causing what to happen outside of clinical research and in a real world research situation (Gomm, Hammersley and Foster, 2000).

The review of this suggests;

> *"…the artificial assessment of individuals in communities to intervention and control groups is not only often impractical, but frequently impossible as it places quite unrealistic constraints on the evaluation design"* (Nutbeam, 1998: p.36)

Further critique of RCT's is the pathologizing language used to identify and describe those targeted in specific groups. Such a medical model approach is related to the often clinical and laboratory based testing of health intervention (Smith and Pell, 2003). This is often suggestive that participants have ill health as opposed to altering behaviour to improve wellbeing or essentially as a preventative as highlighted in recent strategies (Davidson, McGrath, Meleis, Stern, DiGiacomo and Dharmendra, 2011). When examining the language used within the evaluation of interventions, specifically process evaluation (see section 3.7.3), the medicalised rhetoric implies the need for intervention based upon poor health and illness (Linnan and Steckler, 2002). It must be considered that this may impact upon attendance and adherence of sport/physical activity intervention (regardless of activity level), as those who do not identify with this medical model for intervention would simply not engage based on notions of 'I am not ill/I do not need this/this is not for me'.

It was the desire of funders to use a control group within this study, to measure the effectiveness of both the evaluation and intervention. It was the vision of funders to compare data collected in leisure centre settings (universal services) and those of participants who engage in the BCiM. The aim being both groups of participants (BCiM and leisure centre) identified as being physically inactive prior joining and completing baseline IPAQ. It was considered that the leisure centres were selected due to locality however the practicality of this was challenging. Attempts were made to collate this data by funder's however this generated little data due to time constrictions and leisure

centre staff being responsible for data collection. Therefore it was thought appropriate to develop a process and outcome evaluation.

3.7.3 Process and Outcome Evaluation

The effectiveness of a health promotion intervention has been commonly evaluated using both process and outcome measures (Green and South, 2006). Process evaluation essentially examines the efficacy of the intervention, identifying implementation, function, mechanisms of impact and contextual factors. This evaluation can identify the components that have contributed to the success or inadequacies of an intervention. Outcome evaluation is concerned with documenting any change as a result of intervention, the terms impact and outcome are somewhat used interchangeably however both refer to change or the effect of a programme on society. Impact is generally used as a term in which immediate effects and outcomes for longer term effects.

Developing a guidance framework for process evaluation, Moore, *et al,* (2014) explore three factors which are essential when conducting a process evaluation. These include; intervention implementation, causal mechanisms and contextual factors. Intervention implementation or the understanding of the quantity and quality of what was implemented was fundamental to process evaluation. Moore, *et al*, suggest that this may encourage a standardisation which in turn will inform the interpretation of intervention outcomes. Although notions of standardisation are central to the assessment of implementation, the development of a standardised implementation model may inhibit interventions due to socio-economic diversity. Causal mechanisms are additionally explored by Moore, et al, who suggest close scrutiny of causality. Arguing that by identifying causal mechanisms, *“it is possible for the evaluation to*

contribute to developing more effective interventions" (p.101). Understanding the context in which a complex intervention is successful is an essential factor in the evaluation process.

Moore, et al, argues the importance of exploring the contextual factors that may impede and/or strengthen how an intervention is received and its effects. When exploring changes in behaviour through complex community intervention, contextual factors such as organisation, social dynamics and processes may influence it effectiveness (McNeill, Stoddard, Bennett, Wolin and Sorensen, 2012). Campbell, Murray, Darbyshire, Emery, Farmer, Griffiths, Guthrie, Lester and Wilson (2007) argue context is important when designing, implementing and evaluating interventions. By examining wider socio-economic backgrounds, service systems and organisations, characteristics of the population, prevalence or severity of the condition studied, it enables the researcher to identify contextual factors.

Social contextual factors are developed further by McNeill, *et al*, (2012), who identify the following factors as having a powerful influence on health behaviours; *Individual factors*, such as finances and child care may have an impact. Further impact is seen in *Interpersonal factors*, in which social ties, family commitments, roles and responsibilities and social norms influence behaviours. *Organisational factors*, include employment, job stresses and social capital. Finally *Community factors* such as an individual's ability to access a safe place to exercise, health promoting services and social processes/social dynamics further impact upon health behaviours.

Process evaluation is relevant in the context of complex evaluation, as Nutbeam (1998) identifies a continuum of three outcomes, from proximal to distal. The lowest

level of evaluation being '*Health Promotion Outcomes*', highlighting the immediate results from an intervention (proximal). These may include increased knowledge and health literacy, skills and self-efficacy. The next level on Nutbeam's continuum is '*Intermediate Health Outcomes*', which highlights an increased control over the determinants of health. This includes changes in behaviour, improvement in environment and further appropriate use of health services. *'Health and Social Outcomes*' is the third level and includes influence in quality of life and wellbeing and changes to mortality and morbidity. It is suggested that there are significant challenges to measuring mortality and morbidity when evaluating health intervention as outcomes often occur in the future and therefore are impractical.

Understanding intervention efficacy, design and delivery is crucially important when exploring the effectiveness of a project (Moore, *et al*, 2013). Knowing the how and why enables the researcher to assess the reach of the intervention and the subsequent outcome. Like intervention design, frameworks for an interventions process evaluation vary an example is seen in Linnan and Steckler (2002) framework in which seven primary components which assess process effectiveness.

Table 3.5 Process Evaluation Framework

Component	Definition
Context	The environment in which the intervention is delivered or embedded (social, political, economic)
Recruitment	Methods used to approach and recruit participants
Reach	Intended audience participation
Dose delivered	'amount' of intervention provided
Dose received	Extent of engagement

Fidelity	Extent to which the intervention was delivered as planned – quality and integrity of the intervention and is it as envisaged by the developers
Implementation	The extent to which the intervention was received (reach, dose, fidelity)

Source: Linnan and Steckler (2002)

The following section will identify the evaluation framework used to evaluate the BCiM and explore the frameworks used by other Get Healthy, Get Active interventions.

Section II - Evaluating of the Black Country in Motion design framework

3.8 Evaluation Processes of the Get Healthy, Get Active Intervention

The initial process and design of the project was created by the funding body and stakeholders as part of a national initiative *Get Healthy Get Active*. To ensure a standardisation of projects, there were prerequisites in the design, process and evaluation if the BCiM. This section will identify the framework of evaluation design and explore some of the many publications of other *Get Healthy, Get Active* evaluations.

Mansfield, Anokye, Fox-Rushby and Kay (2015) evaluated the Health and Sport Engagement (HASE) intervention in the London Borough of Hounslow. Their evaluation used a process and outcome approach to explore the effectiveness of the project in increasing physical activity in Hounslow's inactive population. HASE evaluation did not use a control group to explore effectiveness. The outcomes explored were; physical activity, health, wellbeing costs to individuals and were measured against self-reporting questionnaires IPAQ and EQ-5D-5L (a standardised tool for the measure of wellbeing), and participant interviews. Process evaluation

occurred through identifying design, implementation, mechanisms of impact and contextual factors. This was explored through a longitudinal study, using participant interviews and focus groups, alongside structural observations and interview methods. The process factors used by Mansfield, *et al*, (2015) were as followed;

- Fidelity - consistency of the planned intervention
- Adaptations - changes required for the success of the project
- Dose - How much of the intervention was delivered
- Reach - Degree to which target participants engaged
- Acceptability - extent to which potential participants are willing to receive and engage
- Resources - required to produce successful intervention
- Mechanisms of impact - experiences of delivery personnel and participants, and the intended and unintended consequences.
- Contextual factors - wider social factors which strengthen and/or weaken the intervention effects (e.g. organisational structures, skill set of delivery personnel, intervention location)

Focus groups were employed as part of data collection to identify the process factors and in evaluating the efficacy of the HASE project in design and delivery of an effective intervention.

Leicester-shire Get Healthy, Get into Sport (GHGIS) was a multi-agency led intervention aimed at increasing physical activity and sport, in two areas of high socio-economic deprivation. Evaluation being undertaken by the British Heart Foundation based at Loughborough University. Using a mentor program for the initial 6 weeks of engagement, this project used both leisure centres and community provision for activity delivery. Evaluation of the GHGIS programme used a mixed methods approach using process and outcome evaluations. Outcome data included; physical activity, health and wellbeing and goals to participation, this was measured using IPAQ, PARQ, GROW (a standardised tool for assessing an individual's goals), mentor session records, leisure centre attendance records and participant interviews. Process factors were obtained using a timeline for significant changes within the project and

using semi-structured interviews with participants to gain feedback of the project and mentors. The process measures were fundamentally based upon contextual factors, identifying the delivery of the intervention, organisational factors and the sustainability of the project going forward.

The mental health organisation MIND facilitated a physical activity intervention which was delivered by 'volunteer peers' and sport co-ordinators. The intervention's aim was to decrease sedentary behaviours, improve mental health and wellbeing through physical activity and sport. Evaluation was undertaken by an independent research team of academics and was a dualistic approach. Provisional analysis of process and outcome was undertaken, with further evaluation using a control group (measuring the wellbeing of those who received intervention against those who did not). Process evaluation explored impact and reach of the intervention, alongside contextual factors such as delivery and organisation, this was obtained using qualitative methods. Outcome evaluation was more complex, in that the number of measures used to identify outcome effectiveness was considerable. It was highlighted in the evaluation report that the drop off rate in data collection was significant. Outcome data was obtained by using the following measures;

- IPAQ - measure physical activity and behaviour change
- Single Item Measure - to identify activity (1x30 minutes per week)
- Warwick Edinburgh Mental Wellbeing Scale (WEMWBS) - to identify mental health and wellbeing wellness
- Exercise Benefits and Barriers Scale (EBBS)
- Behavioural Regulations in Exercise Questionnaire (BREQ-2)
- Social Provision Scale (SPS-10)
- 1 week Physical Activity and Mood diary in 42 participants

Interview data was additionally collated to identify further impact of the intervention as this project not only aimed to increase physical activity in the inactive but provided

opportunity for ‘peer’ delivery (peer referring to those who experience mental health difficulties to support and mentor others).

Leeds Let’s Get Active intervention was independently evaluated by Leeds Beckett University and adopted primarily quantitative methods to measure outcome data to identify effectiveness. Using a self-reported, single item measure to gauge physical activity, this evaluation was able to categorize its participants. Control groups were then used to measure intervention effectiveness. Participants were differentiated between Adopters (those that had signed up to the intervention) and IPAQ Adopters (those that had signed up to the intervention and completed the IPAQ). Furthermore participants were further divided into 3 activity categories; (i) inactive, (ii) insufficiently active and (iii) sufficiently active.

The University of Lincoln provided an independent evaluation, of the Macmillan Get Active, Feel Good physical activity programme in Lincolnshire. This evaluation used a mixed methods approach and a process and outcome evaluation framework to measure programme effectiveness. The process factors explored were;

- reach, efficiency and impact
- acceptability and the assessment of perceptions of service provision
- Contextual factors such as organisational structure and intended/unintended consequences

Outcome data was collected using a number of quantitative and qualitative tools to measures, of which attendance and socio-demographic data was collected. Alongside this the following tools were used to identify outcome;

- IPAQ
- EQ-5D-3L health scale
- FACIT fatigue scale
- Interviews to identify changes in wellbeing

3.8.1 Applying an Evaluation Framework for the Black Country in Motion

The primary limitations of a process and outcome evaluation, as previously described, stem from a lack of control groups. This limitation may include a difficulty in identifying changes that have occurred as a consequence of the intervention and determining if changes would have occurred without. However, as highlighted in the above studies, the use of process and outcome evaluations provides opportunity to explore the complexities of interventions.

It is argued by Nutbeam (1998), it is essential that both effectiveness measures (outcomes) and process measures relating to the delivery of an intervention are undertaken within the evaluation. In this study a process and outcome evaluation was used to identify intervention effectiveness. Valid measures of immediate outcomes have been identified, to include measures of attendance, baseline and at 3 points post initial engagement. Therefore any change was unlikely to be due to temporal change. Distal outcomes of morbidity and mortality were not available in the timescale of this study. Within this study there has been a comprehensive process evaluation using an adaptation of a framework developed by Linnan and Steckler (2002). The purpose of using a process and outcome framework to evaluation was essentially due to limited baseline and follow up data from the control group.

3.7.2 Intervention Process and Outcome Evaluation Framework

Akin to previously discussed intervention evaluations of outcomes the following were predetermined tools to ensure standardisation. These were are examine table 3.6 below;

Table 3.6 - Framework for the BCiM Process and Outcome Evaluation - Key Components which will be assessed

Outcome	**Process**
Single item measure to identify physical activity	Recruitment
IPAQ	Reach
PARQ	Dose - delivered and received
Socio-demographic data	Fidelity
Attendance registers	Implementation
	Context

3.9 Research Traditions

As previously indicated the researcher's philosophical position is in support of the pragmatic approach. Creswell and Plano Clark (2007), and Tashakkori and Teddlie (1998), suggest that a pragmatist position offers alternative perspective to those pertaining to (post)positivism and constructivism focusing primarily on the problem being researched and the consequences of the research. With the diversity needed when evaluating complex community intervention, the suitability of a pragmatist approach supports the contentious issues pertaining to truth and reality and accepts that there are singular and multiple realities that can orientate the solving of '*real world'* problems (Creswell and Plano Clark, 2007, p20). Thus proposing pragmatism offers the mixed methods researcher an open door to the multiple methods, different worldviews and varying assumptions to enable robust exploration (Burke-Johnson and Onweugbue, 2004).

The researcher's epistemological stance throughout this study will be of a pragmatic position in which varying philosophical assumptions pertaining to paradigm differences will be embraced in their polarity (Teddlie & Tashakkori, 2009, Creswell, 2011; 2014). An overarching theoretical framework used within mixed methods research is social science theory, which according to Creswell (2011) may be drawn from diverse theories. The incorporation of social theory is subsequently explored through literature review and as a conceptual model through the exploration of behaviour change. However as discussed in Morgan (2007) postmodernist frameworks are inherent with pragmatist paradigms and therefore the conceptual and theoretical framework for this thesis will be underpinned by a postmodernist perspective.

3.10 Mixed Methods Purpose

As previously highlighted, the BCiM was part of a national project, in which some methods were predetermined to ensure a standardised approach. These measures aimed to monitor physical activity and highlight instances of behaviour change alongside social contextual processes around its delivery by volunteers. Furthermore, stakeholders and public health bodies from each borough were involved in the evaluation direction, aiming to identify the impact of the project within their constituency. The researcher therefore took extensive consideration in the methodological approach to this evaluation, ensuring the incorporation of predetermined methods and with emphasis upon providing a robust evaluation. Therefore it is with this in mind that the researcher opted for a multi-faceted approach to answering the research question using mixed methods.

Within the exercise and physical activity research milieu, mixed methods approaches are commonly used to evaluate effectiveness (Koorts and Gillison, 2015; de Meij, *et*

al, 2013). With the flexibility mixed methods designs and evaluations provide, it is argued this approach can enable the researcher to integrate various analysis methods (Bazeley, 2018). For example Koorts and Gillison (2015) develop a concurrent triangulation design to compare and contrast multiple data sources to strengthen the validity of their interpretations. Whereas Garnett, *et al*, (2017) explore the effectiveness of school intervention in the adherence of physical activity and explore psychosocial impact upon this. Using a sequential explanatory mixed methods approach, Garnett, *et al*, assess intervention impact, by measuring activity alongside academic achievement and psychosocial effect. Mixed methods strategies are applied by Schaller, *et al,* (2016) who apply a separate yet concurrent and merging at the point of interpretation analysis to develop the effectiveness of an intervention aimed at increasing physical activity in older adults. These examples highlight the ability for mixed methods approaches to provide a multi-faceted evaluation, in order to answer complex research questions.

The purpose of using mixed methods was essentially to extend the breadth of the research by incorporating qualitative measures with the predetermined quantitative evaluative tools. The purpose of this mixed methods approach was originally aimed at developing an expansion and/or enhancement model for evaluation (Creswell, Plano Clark, Gutmann and Hanson, 2009), addressing different aspects of the study. Quantitative methods being used to address the objectives of determining physical activity, physical activity duration and intensity at baseline and 3,6 and 12 points (aimed to identify changes in behaviour), measure attendance and the socio-demographics of the participant. Qualitative methods were used to further explore the following;

- develop the processes of behaviour change,

- the impact of the community volunteer,
- to explore the volunteer experience
- to identify the social process of community intervention
- To explore the efficacy and effectiveness of the BCiM

The justification for this approach was to address the impact of a community led health intervention in its ability to increase physical activity. The researcher's intention was to analyse the quantitative and qualitative aspect separately. However this altered throughout the development of the project and as a result of a limited number of participants. Additionally impacting this approach was the engagement of participants in the data collection process and the challenges the researcher faced when collecting follow up data.

Although the original purpose of expansion and/or enhancement remained central to the exploration of behaviour change, the mixed methods approach and analysis strategy has evolved as a result of challenges in recruitment and adherence to the research process. It was necessary for the researcher to explore why this had happened. Therefore expansion remained central to the approach however a secondary purpose of the mixed methods approach was that of Transformatory. The transformative paradigm is '*a framework for examining assumptions that explicitly address power issues, social justice, and cultural complexity through the research process*' (Mertens, 2007: 212-213). The premise of the Transformatory approach is to explore the social structures of those who occupy different places as they have different understandings of reality (Bazeley, 2018). Therefore when evaluating interventions which embody social knowledge, it is essential to identify processes that trigger change and transformation in communities (Mukherji, 2006).

The purpose of using a Transformatory model for evaluation is to identify inequalities and the need for change (Mertens, 1999). Using a Transformatory model in this instance, places emphasis on the lives and experiences of marginalised groups and those that experience social inequality. This model is based upon the transformative paradigm, drawing on fundamental ontological, epistemological and methodological assumptions. The Transformatory framework holds a viewpoint that there are disparities with regard to social realities, and to understand these differences we must include a contextual understanding of cultural and economic value systems (Mertens, 1999). Mertens (2007) goes on to identify the importance of transformative paradigms in mixed methods frameworks in their ability to create opportunities "*for those whose voices are traditionally excluded*" (p.214) and develop understanding in real world research.

3.11 Data Analysis and Integration Framework

The evaluation of the Black Country in Motion takes the form of a concurrent transformatory design. This design involves the collection, integration and analysis of quantitative and qualitative data concurrently, merging of these two data sets and using the combination best to understand a research problem (Creswell, *et al,* 2003). The merging of the two data sets was undertaken at the point of analysis (see figure 3.1 below for an expressed representation of the study framework).

The quantitative and qualitative data was collected concurrently throughout the research and initially the researcher aimed to have an equal priority in quantitative and qualitative data collection. However due to the challenges encountered with participants engagement in the quantitative data collection, the researcher chose a qualitative heavy approach to gain greater understanding and depth. An exception to

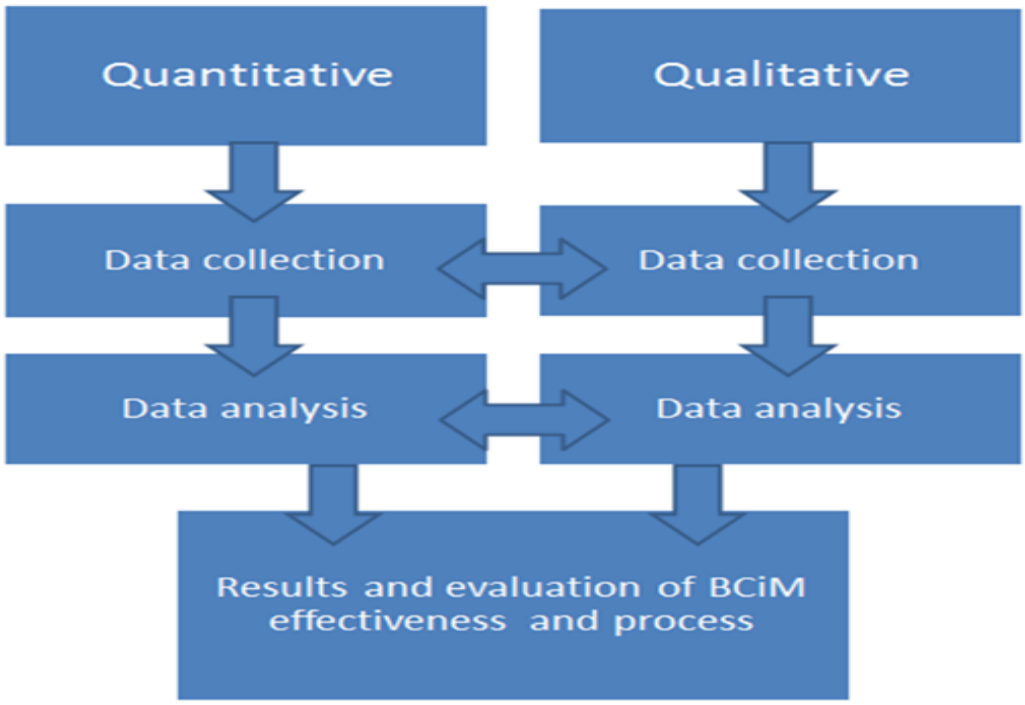
the concurrent approach to data collection was in the sequential approach in identifying attendance and demographics of participants who had engaged in the project.

Table 3.7 - Framework for Analysis

	Mixed Methods Purpose	Framework
Participant behaviour change	Expansion	Sequential
Volunteerism	Expansion and transformative	Concurrent
Process Evaluation	Expansion and transformative	Concurrent

Table 3.7 provides a framework which outlines the analysis of this mixed methods study. When examining participant behaviour change and the psychosocial variables included in this process, a sequential framework was applied. Evaluating volunteerism and the process evaluation of this intervention a concurrent framework was applied.

Figure 3.1 - Visualisation of the Concurrent Transformatory Mixed Methods Design for the Black Country in Motion



The integration of the quantitative and qualitative methods was influenced by the purpose of analysis, separate analysis of the two datasets was undertaken and integration was applied at the interpretations stage (Bazeley, 2018). For example, the results from IPAQ data essentially identified the dichotomy of activity, and the interview data identified it these changes were as a result of the intervention. The primary purpose of this approach was expansion and exploration, the integration of the data collection and analysis was therefore to produce greater insight.

3.12 Conclusion

This Chapter sets out the philosophical paradigm and research frameworks which have been used to guide this research. This research will evaluate this intervention, a pragmatic approach was applied, using a mixed methods framework. In the following chapter (Chapter 4 - Methods), details of the development of the project and the methods used to collect data are discussed.

Chapter 4 - Methods

4.1 Introduction

This chapter details the methods used for the evaluation of the Black Country in Motion intervention aimed to increase physical activity in areas of high deprivation. Section I of this chapter identifies the research question, research design and therefore outlining the aims of the research. Section II outlines the development of the project and the delivery of the programme. Section III gives details of data collection, the methods used and provides information for how the process and outcome evaluation assesses effectiveness. Section IV identifies how the process and outcome evaluation integrates the mixed methods approach to the analysis and interpretation stages to identify the effectiveness of the intervention. As this study uses a mixed methods approach, incorporating both quantitative and qualitative methodology, this section highlights the chosen methods based on the likeliness to address the aims of the research.

Section I - Identifying the Research Question, Aims and Objectives

4.2 - Research Design and Addressing the Research Question

This section will identify the research design and approach to answer the research problem posed. As previously discussed pragmatism offers a collective of coherent concepts and articulations for addressing key issues in design (Dalsgaard, 2014). Drawing on the characteristics of theoretical polyvocality, the theoretical position of pragmatism provides a premise for addressing diverse and multi-faceted research problems. Hall (2013) proposed as philosophical assumptions are logically independent; they can therefore be mixed in conjunction with methods in a combination which is appropriate for inquiry. Therefore the researcher must be responsive with regards to integrity, meaningfulness and coherence when affiliated to such a fluid paradigmatic approach using mixed methods design and analysis.

As previously highlighted a mixed methods inquiry combines methods however in doing so this develops a paradigm issue. However Greene and Caracelli (1997) argue the use of mixed methods in such evaluations in essence provides opportunity to utilise what varying paradigms offers. The underlying rationale for a Transformatory mixed methods inquiry is to understand fully, generating deeper, robust insight to develop knowledge claims. Different methods are best suited for the investigation of different types of phenomena and the use of different methods helps counteract the arguments constructed around bias. Thus highlighting an advantageous insight through developing a model which includes both post-positivist and interpretivist traditions (Campbell & Fiske, 1959 cited in Greene & Caracelli, 1997).

As identified in mixed methods research design and analysis, an integrated dataset was used. Padgett (2014) develops a systematic approach to mixed methods design involving two primary axes – sequential versus concurrent and dominant/subdominant verses equal. The reference to dominant methods refers to the method which is given prominence, with sequential/concurrent referring to the timing of the used methods. Developing upon convergent transformative design, the development of the datasets was drawn from an explanatory design in which qualitative methods were used to develop quantitative methods (Creswell, 2014; 2015). Creswell (2014) discusses explanatory concurrent mixed methods in which quantitative research is conducted alongside qualitative research to build and further develop findings.

The consideration of explanatory design was due to the initial quantitative data providing limited results (as discussed below). With the IPAQ's dichotomous ability to determine activity/inactivity, interpretations of intensity and the limitations to self-reporting questionnaires, it was felt the depth of exploration surrounding behaviour

change would not be sufficient. Although the IPAQ is used to measure the intensity and duration of exercise, this did not provide an accurate measure, therefore additional exploration into the processes of change were explored. The explanatory transformative model for evaluation was used to identify the following;

- Transitions and change through the application of the transtheoretical model.
- Social and community processes that support or impede change
- The volunteer process and impact of the community volunteer

4.3 Approaching the Research Question

To concisely identify the research design, examination of the research question and aims of this study require exploration. This thesis essentially explores the efficacy and effectiveness of a community led, physical activity intervention, the research question being;

"Taking into account impact, does a person centred, community led, geographically targeted intervention increase the participation of inactive people in areas of high health inequalities and low participation?"

It is therefore considered that the research was multidimensional with regards to areas of exploration and thus providing the premise for a mixed methods approach. A multi-faceted approach to this study of effectiveness allowed the researcher to explore this initiative's approach to community intervention in the following areas;

- Identify its ability to influence behaviour change
- Exploring impact and sustainability of the BCiM intervention
- Examine community provision and its ability to engage the inactive
- Explore volunteerism and the community

4.4 Research Aims and Objectives

The aim of the research was to evaluate the efficacy and effectiveness of this community led intervention in increasing physical activity amongst the Black County's inactive population.

The research objectives are as follows;

- To evaluate the effectiveness of the BCiM project
- Identify the process of behaviour change from sedentary to active
- Examine the impact of the BCiM and physical activity upon quality of life and well being
- Explore barriers and challenges to physical activity and how these may have been overcome
- Explore community volunteering, the impact of the project and the volunteers impact upon exercise adherence
- Evaluate the sustainability of the BCiM

Section II - Governance, Development, Recruitment and Delivery of the BCiM.

4.5 Project Governance

The Black Country in Motion was a multi-agency and stakeholder project. This evaluation was undertaken as an independent study by the University of Wolverhampton, and the position of the researcher is discussed further on. The governance and direction of the project was undertaken by a steering advisory group (SAG) consisting of leads in public health and sport development across the 4 boroughs of Dudley, Sandwell, Walsall and Wolverhampton East. Alongside were the County Sports Partnership (CPS) and Black Country BeActive group. The project facilitation was tendered out to Wolves Community Trust's Health and Wellbeing Office. A tactical advisory group (TAG) which consisted of project Activators, the researcher and project manager was additional to the governance of the project. The premise of the SAG was to act as an advisory and support to the TAG regarding the delivery of the project. These groups met 4 times a year during the delivery of the project (October 2013 - February 2016).

As previously highlighted this project was a Sport England funded initiative and part of the Get Healthy, Get Active funding award (see Appendix I for a detailed breakdown

of funding). Ethical Approval was granted from the University of Wolverhampton Ethics Committee.

4.6 Developing the Black Country in Motion Project

The project development was guided by insight reports from the Black Country BeActive group (2013) and Coventry University Research (CURe, 2013) (please see Appendix II and III). This insight was gathered from survey data (APS 6 2012) and focus groups which were conducted with community members within the targeted areas. It should be noted at this point that those participants who partook in this insight study were civically engaged and it is suggested were not the targeted participants.

This insight informed the SAG, the CPS and project manager of the wants and needs of the communities targeted in the intervention. Focus groups were held in each hub within the local authority, and gathered data which provided recommendations for each community. The insight offered common themes however it additionally highlighted the differences in each hub, reaffirming the ineffectiveness of a generic, one size fits all approach. It additionally highlighted the geographical constraints set within communities, as a result from historic bias, in which individuals within certain communities would not access provision offered in neighbouring communities. From this finding, it was suggested that activities should reflect the culture demographics and expectations individually within each community. It was highlighted in this insight report the barriers encountered which prevented participation, these included, time, cost, lack of provision/facilities, confidence and family responsibilities such as childcare and work. Primary suggestions from the report were refraining from the direct use of ‘sport’ in its marketing and the phased introduction to the programme occurred, this was due to cynicism about initiatives which have been delivered previously.

Fundamental to the delivery of the programme was the building of rapport with the communities from the project activators. The role of the project activator worked with community organisations, members of the community and pre-existing initiatives to develop programmes sessions.

4.6.1 Overview of the Intervention Delivery

The delivery of the BCiM was within 4 boroughs of the Black Country area, Dudley, Sandwell, Walsall and Wolverhampton East. The targeted recruits were aged 14+ and intervention sessions were delivered throughout the week, within community and leisure centre locations (see Appendix V for a breakdown of activities over the course of the project). The groups were led by community volunteers and instances in which volunteers were not available sports coaches or the project activators delivered the activity. The volunteers had been recruited from local services or advertisements in the local community or through Wolverhampton Wanderers Community Trust (WCT). In many instances volunteers had knowledge of the local area and social structures, however had limited knowledge in the delivery of sport and physical activity. Therefore these volunteers underwent intensive training to obtain a level 1 NGB award, basic first aid and a safeguarding. Volunteers then delivered this physical activity or sport to those who attended the session. Opportunity to gain further qualifications after having delivered a number of sessions was available to volunteers (this varied due to the longevity of sessions). It was the intention of the programme to provide training opportunities for participants to become session volunteers, thus enabling sustainability for the project and developing their social capital.

The activities that were delivered were aimed to increase physical activity and sporting opportunities in areas of high socioeconomic inequality. Box 4.1 outlines the initial BCiM project targets, developing the outcomes and outputs from this intervention.

Box 4.1 - Black Country in Motion Project Targets

Outcomes

- Increased percentage of people achieving 1 x 30 minutes of sport per week (measured by the Active People Survey)
- Decreased percentage of people achieving 0 x 30 minutes of sport per week (measured by the Active People Survey)
- Increased percentage of people achieving 1 x 30 minutes of physical activity per week (measured by the Active People Survey, linked to Public Health Outcomes Framework measurements)
- Decreased percentage of people achieving 0 x 30 minutes of physical activity per week (measured by the Active People Survey, linked to the Public Health Outcomes Framework measurements)
- Increased Economic development activity through employment for the activators and employment opportunities for volunteers as the programme develops through self-employment and employment
- Increased social capital and strengthened community cohesion
- Increased knowledge, skills and qualifications through the training part of the programme
- Improved health and well-being (self-reported improvements in health, mental well-being etc. It is not intended to undertake physiological measurements as part of the research programme)
- Contribute to improved support for vulnerable/struggling families (through support to 14+ years)
- Increased evidence for future delivery mechanisms for Sport in the Black Country and increased advocacy resources for use with Health and Wellbeing Boards and other Commissioning Boards.

Outputs

- 3000 people active in at least 1x30 of sport per week
- 8 sport health hubs developed
- 3,000 people engaged in the programme out of the potential 12,135 people in 21 locations
- 70% retained after 3 months, 60% after 6 months and 50% after 12 months
- 80 community members trained to deliver at least 4000 of activity hours per year
- 130 clubs/organisations trained and mentored to support inactive people into Sport England

4.7 Project Recruitment

The recruitment of the interventions participants was undertaken by the project activators and a strategy was developed that utilised the following; community associations, clubs, exercise referral schemes, health trainers (specific to borough), community centres, social media, word of mouth, websites, flyers and posters. The recruitment of the volunteers who delivered the activity session was also undertaken by the project activators through community associations, social media, and word of mouth, posters at community venues, sports clubs and through Wolverhampton Wanderers Football Clubs affiliations to Wolves Community Trust.

4.7.1 Inclusion and Exclusion Criteria

The inclusion and exclusion criteria of participants was based at the single physical activity measure obtained at first contact. This included participants who identified as completing less than <1x30 minutes of moderate intensity exercise in the previous 7 days. Participants who identified as having exercised more were sign posted to alternative provision, unless they were supporting an inactive friend. This data was not included in research. The use of exercise ‘buddying’ has been examined within literature in its ability to engage the inactive. The British Heart Foundation (2012) estimate 1 in 4 women are likely to attend a physical activity session if attending with a friend. Developing on this further when examining engaging sedentary women in exercise, Yoke (2017) states that having an exercise buddy as an ideal physical activity situation to ensure engagement and adherence.

When examining community intervention in areas of socioeconomic disadvantage, Howlett, Jones, Bain and Chater (2017), identify that having an exercise buddy, which

not only participates in the activity but is supportive with regards motivational interviewing can further increase adherence.

As the recruitment age was 14+ (and in some instances of family activity, participants were younger), participants were of school age and engaged in PE were included in the activity session. PE activity was not included in this measure.

All participants aged 16+, who met the above criteria were included in the study. It was a prerequisite of participation and engagement in the BCiM, that all participants were engaged in the research process. Participants under the age of 16 were not included in the research process as their PE activity would alter the IPAQ results and engagement required parental consent prior to beginning the research process.

Volunteer inclusion criteria was identified through the wants and needs of the volunteer and aligned with the needs of the community and suitable training provision or options. Due to legal implications regarding the possible receipt of benefits, employment status and the availability for voluntary hours was considered.

4.8 Procedure for Obtaining Informed Consent

Informed consent was obtained from both participants and volunteers (see Appendix VIII). The project's activators acquired this from volunteers, and participant consent was collected through the project's volunteers. A collective of documents were issued to new participants at point of contact, of which the informed consent form was part. Volunteers were trained in the manner in which confidential information was collected in accordance with the Data Protection Act (1998). Following the completion of

informed consent documents, information was then collected by the project activators and/or given to the researcher.

Section III - Data Collection

4.9 Overview of Mixed Methods Evaluation

In this section the researcher describes the data collection methods, in an order in which the data was collected (to provide an understanding of what data was collected and at what point).

The BCiM project was evaluated using a mixed methods approach. Contextualising Merten's (2007) and Bazeley's (2018) typology in the previous chapter the main purpose of using mixed-methods was primarily expansion and transformatory. The purpose being to extend the breadth of the research to identify varying aspects of inquiry, and to examine cultural complexity in areas of social inequality. Due to the research having three distinct strands of exploration (participant behaviour change, volunteerism and process evaluation) a convergence of data was used to identify effectiveness. An additional purpose to using a mixed methods approach in this study was to ensure credibility (integrity of the results) and utility (use for practitioners) (Bryman, 2008).

An overview of the data collection is provided in Table 4.1 and gives a systematic representation of the collection of quantitative and qualitative methods used with the project participants, volunteers and activators. This table shows each point of contact with those involved in the research from baseline to the 3 points of follow up and interviews.

Table 4.1 Systematic Representation of the Quantitative and Qualitative Methods Used

Time point	Weeks		Participants						Volunteers		Activators / Field observations
		Measure	Quantitative				Qualitative		Quantitative	Qualitative	Qualitative
		Physical Activity Measure	Demographics	IPAQ	Attendance register	Recruitment Survey	Semi structured interview (Engaged)	Semi Structured interview (Disengaged)	Demographics	Semi structured interviews (engaged and disengaged)	Semi structured interviews
Baseline	0	X	X	X					X		
3 months	12			X							
6 months	24			X							
12 months	52			X							X
24 months						X					X
36 months											X
Programme running	156				X		X	X		X	X

4.10 - Participants Demographics

Developing up on demographic data from Chapter 1, the following will outline the areas demographics for the boroughs in which the BCiM was delivered, providing population demographics and physical activity data. Historically the Black Country had industrial characteristics and geographically industry varied from steel to coal, therefore there was a distinct working class culture. However with a population of 1.1 million people, the Black Country now suffers from significantly high unemployment and health inequalities (APS, 2011). Deprivation within the Black Country is prevalent with 22% of the Black Country's Lower Super Output areas falling within the 10% most deprived in the country. According to the Active Peoples Survey (APS) (2013) the Black Country rates below the national average when compared to fundamental health indicators. Including; Coronary heart disease (mortality of 89 per 100,000 compared to 79 nationally), diabetes diagnosis (6.9% compared to 5.5% nationally), obesity (31% of the adult population) and physical inactivity and sedentary lifestyles. The APS (2015) has highlighted 324,342 people within the Black Country as being classed as inactive.

Using Sport England's market segmentation, the funder's targeted demographics and criteria were as followed;

- Not in the bottom quartile of participation rates
- Not in the bottom quartile of health inequalities
- "Paula", "Leanne", "Kev" or "Elsie and Arnold" market segments within the 5 most dominant areas

4.11 - Market Segmentation

Market segmentation essentially provides a profile outlining population demographics and can be used as a tool to explore motivations and barriers to participation (Sport England, 2015). As a tool, market segmentation attempts to describe 19 profiles as a framework for identifying circumstances, motivations and barriers experienced by

differing social groups. Furthermore this tool aims to inform practitioners on how best to approach and encourage individuals from key population groups to participate in physical activity and sport intervention. Box 4.2 highlights the market segment profiles targeted within this intervention:

Box 4.2 - Market Segmentation profiles for Targeted BCiM Participants

ula" (equating to 7% of adult women) is aged mainly 26-45; is a single parent and is either unemployed or works part time in a low skilled job. She has significant financial pressures, childcare issues, is likely to be physically inactive and little time for leisure pursuits. "Paula" has a poor diet due to financial constraints, smokes and consumes alcohol. Individuals in the segment are predominately of white British (70%), or white other (10%) origin, may also be Asian/Asian British (10%), Irish heritage (6%), Black (3%0 or belong to another ethnic group (2%). Paula's motivations to partake in sport or physical activity would be enjoyment, taking children or losing weight. Whereas barriers would be family commitments, limited opportunity and economic or work restrictions.

"Leanne" (equates to 8% of adult women) is aged mainly 18-25, is likely to have children and is additionally likely to be a student or has part time vocational employment. She struggles with childcare and relies on help from her family where she occasionally manages to go swimming or attend a dance class. Individuals in the segment are predominately of White British (65%), or Other White (14%) origin; or may also be Asian/Asian British (12%), of Irish heritage (5%), Black/Black British (2%), Chinese (1%) or belong to another ethnic group (1%). "Leanne's" motivation to partake in sport or physical activity is primarily to keep fit, socialise or to lose weight. Barriers are work commitments, limited opportunity and economic factors.

'Kev" (equating to 12% of adult men) are aged mainly 36-45, are likely to be married or single, with children and has full time vocational employment. "Kev's" leisure pursuits are predominately socialising in the local pub, he is essentially physically inactive, enjoys smoking and drinking, and his interest in sports are watching football. "Kev" used to enjoy physical activity and sport however due to work/family commitments no longer partakes in either and his diet consists of unhealthy, processed food. Individuals in this segment are predominantly of White British heritage (67%), or Asian/Asian British heritage (12%); or may be of Other White origin (11%), of Irish heritage (6%), Black/Black British (2%), Chinese (1%) or belong to another ethnic group (1%). "Kev's" motivations to partake in activity would be through his enjoyment of sport, keeping fit, socialising or to take his children. Subsequently work and family commitments, economic factors, health and limited opportunities are barriers which imped participation.

"Elsie" and "Arnold" (equating to 2% adult men and 14% of adult women) are aged 66+ and are likely to be retired and widowed. "Elsie" and "Arnold" reside in sheltered housing and enjoy partaking in occasional low intensity physical activity and tend to walk. They are less active than the average adult however they are consistent with any activity undertaken. Individuals in this segment are predominantly of White British (88%), or of Other White origin (5%); or may also be of Irish heritage (5%),

Asian/Asian British (1%), Black/Black British (0.5%), Chinese (0.5%) or belong to another ethnic group (0.5%). “Elsie” and “Arnold” are motivated to partake in physical activity or sport to socialise and keep fit and barriers they are increasingly likely to encounter are due to health, injury or disability.

4.12 - Sample Size and Recruitment

4.12.1 Participants

As previously discussed participants of the BCiM were ages 14+ however for the purpose of this research participants aged 16+ were included in the study. In total 991 participants completed baseline data, at the point of analysis, of which 789 were eligible for the research process. Table 4.2 provides a breakdown of the demographics of participants

Table 4.2 - Participant Demographics for Quantitative Study

Age range	12 - 93
Male	*n= 387*
Female	*n= 604*
Ethnicity – White	*n= 659*
Asia	*n= 69*
Mixed	*n= 53*
Black	*n= 55*
Preferred not to specify	*n= 55*
Employed	*n= 162*
Unemployed	*n= 7*
Retired	*n= 109*
NEET (not in education, employment or training)	*n= 178*

Did not specify	*n= 244*
Disabled	*n= 61*

Participants (*N= 789*, Age: 40.19, SD = 17.89); participant age ranged from 12-93 of which 659 identified as being ‘white’; 53 as ‘Asian’, 69 as ‘Black’, 4 as ‘other’, 62 preferred not to specify, with missing data accounting for the remainder. Data highlighted employed participants as 162, unemployed 7, retired 109, NEET (not in education, employment or training) 178 and 244 did not specify. 61 participants reported a disability and 726 reported no disability. When signing up to the BCiM programme participants were made aware that they were required to partake in the research process as a prerequisite to participation. Therefore all participants were included in the quantitative research process.

Table 4.3 Participant Demographics Qualitative Study

	Engaged Participant	Disengaged Participant
Male	2	4
Female	9	8
Age	24 - 64 (*SD= 43*)	22 - 63 (*SD=42*)
Ethnicity - white	7	8
Asian	0	0
Black	1	2
Mixed	3	1
Preferred not to specify	1	1
Employed	3	4
NEET	6	7

Retired	3	1
Disability	3	3

For the qualitative study, participants were selected based upon their engagement with the programme. Using attendance records and field observations the researcher was able to identify participants from each of the 8 hubs and their (dis)engagement in the programme. To gather a spread of data to explore the effectiveness of the project, participants were selected from all the BCiM hubs identified as targets from the insight report.

4.12.2 Volunteers

The BCiM aimed to engage local community members with the objective to recruit, train and support a targeted 80 volunteers over the 3 years of delivering a range of sport and activity classes to meet the local needs. These needs were drawn from previous insight collated or conducted by (or on behalf of) the Black Country County Sports Partnership (CSP). Working with the project Activators, the volunteers followed a training and induction programme designed to provide the community volunteer the appropriate training to deliver a sustainable physical activity within the sporting hub. The premise of which was to provide a community asset based approach, providing formal and informal sports and physical activity activities at a low cost to the local communities. It was considered that the volunteer would provide an average of 2.5 hours per week to deliver the exercise and physical activity sessions. Sustainability of the sport/activity classes was determined by the volunteer receiving support and guidance from the Activators, once trained to organise, promote and deliver their activity sessions. The premise of which aimed to provide the volunteer opportunity to become paid or self-employed coaches or to remain as sports volunteers within

organisations and communities. Pertaining to the ideology of developing capital (Putnam, 2000) the aim of this volunteer programme was to fundamentally increase employability through the development of networks and skills. According to the APS8 (Sport England, 2015) 17.3% of the Black Country population have no qualifications, equating to 117.600 people, 55,568 more than the national average of 9.1%. It is with this in mind that an objective of the BCiM was to increase and facilitate social capital acquisition and thus increase employability. Again using Sport England's market segmentation, intervention design was aimed at engaging the following in the volunteering process of the project. Box 4.3 outlines these profiles;

Box 4.3 - Market Segmentation profiles for Targeted BCiM Volunteers

Ben" (Equating to 10% of adult men) is aged mainly 18-25, is likely to be a single graduate professional. "Ben" is very active and enjoys sport and physical activity as a leisure activity and maintains a healthy lifestyle however he frequently consumes fast food. Individuals in this segment are predominantly of White British (74%), or Other White (12%) origin; or may also be Asian/Asian British (7%), of Irish heritage (5%), Black/Black British (1%), Chinese (1%) or belong to another ethnic group (1%).

"Jamie" (Equates to 11% of adult men) is additionally aged mainly 18-25, he is single and a vocational student. He is likely to be dissatisfied with his job and aims to find employment within his related field of study. "Jamie" is very active and partakes on sport on a regular basis however he is likely to smoke and frequently enjoys fast food. Individuals in this segment are predominantly of White British (60%), or Other White (15%) origin; or may also be Asian/Asian British (14%), of Irish heritage (5%), Black/Black British (2%), Chinese (1%) or belong to another ethnic group (2%).

"Chloe" (equates to 9% of women) and is aged mainly 18-25, single and a graduate professional. She is health conscious and frequently eats well and regularly partakes in physical activity and sports. Individuals in this segment are predominantly of White British (75%), or Other White (12%) origin; or may also be Asian/Asian British (6%), of Irish heritage (5%), Black/Black British (2%), Chinese (1%) or belong to another ethnic group (2%).

A total of 144 volunteers were recruited to deliver physical activity as part of the BCiM programme. The exploration into the processes of volunteerism and volunteers in this study was based upon their engagement and the manner in which they became

volunteers. It was the purpose of this intervention to provide a sustainable initiative in which participants were able to train and deliver physical activity within their own community. This ideal essentially led a strand of the research and those who had transitioned from participant to volunteer were core to this study. 6 Case studies of those participants who transitioned to volunteering was explored alongside the narratives of 6 engaged volunteers and 8 disengaged volunteers. Volunteers who took part in the research process were aged 19-62 (*SD= 32*), and 14 females and 8 males. Of these volunteers, 15 identified as being 'white', 2 'Asian/British Asian', 1 'Black/British Black', 4 of 'dual heritage'. 10 were employed either full time or part time, 7 were unemployed and 5 were students. The inclusion criteria for volunteers was based up on their engagement/ disengagement in the project and on the hubs they were delivering activities.

4.13 Data Collection Methods

The following section will identify the data collection methods of this research and the frameworks that has been applied. This section will provide an overview of these methods, why they have been chosen and their limitations. This will be broken down to explore the quantitative methods and qualitative methods used in this research.

4.13.1 Quantitative Data - Single Measure Assessment, PARQ and Demographics

Upon first contact with participants, documentations such as single measure activity measure, demographics and consent were obtained. Session volunteers and/or session deliverers were responsible to collecting this data at point of contact. The single measure assessment was to determine a dichotomous measure of those who

are active and those who were not. It was based upon self reported, activity recall of the previous 7 days. Those who had undertaken over 1x30 were excluded from the research process. To measure physical activity suitability, all participants were required to complete a PARQ to highlight any serious health problems. Prior to starting the activity, participants who had highlighted concerns regarding health, were asked to gain medical advice (from their GP), with regards to activity suitability.

Demographic data was additionally collected at point of contact, this requested information about participants address, age, gender, ethnic groups, employment status and how they had hear about the BCiM, in order to determine the success of recruitment strategies.

4.13.2 The International Physical Activity Questionnaire

As Sport England's *Get Healthy, Get Active* intervention is nationwide, generic evaluation tools were required to assess the effectiveness of the national programmes, therefore the use of the International Physical Activity Questionnaire (IPAQ) had been issued. For the purpose of this study the impact of this assessment tool when working with 'hard to reach' communities has been investigated. Volunteers and delivery coaches were trained prior to the activity sessions in how to collect the data and how to support participants in the completion of the required documentation (https://www.youtube.com/watch?v=7HKL6lFlkDE), this was accessible via the previous media and available upon demand. Further training was provided by project activators in the collections of additional data, including single measure assessment, demographics and attendance registers.

The premise for developing the IPAQ questionnaire was for the need to assess 'total physical activity' across varying domains of work, transport and leisure (Kim, Park and

Kang, 2012). Further difficulties were encountered by researchers and clinicians when attempting to accurately quantifying physical activity and exercise participants were engaging with (Rhodes and Pfaeffli, 2010). Therefore it was through a requirement for international standards for measuring physical activity the IPAQ's were developed for this distinct purpose (Booth, 2000). With the aim to monitor entire population the IPAQ's validity and reliability have been tested internationally (Craig, Marshall, Bauman, Booth, Ainsworth, Pratt, Ekelund, Yngve, Sallis and Oia, 2002). The IPAQ is one of many self-reporting surveys used to measure time, frequency and intensity of physical activity. Self-reporting of physical activity is significantly predominant within studies identifying physical activity due to accessibility and ease (Hagstromer, Oja and Sjostrom, 2005). However it has been dually contested self-reporting is subject to miss-reporting (Rzewnicki, *et al,* 2003), providing estimated answers and relying essentially upon an individual's ability to recall past activity (Sallis, Saelens, Brian, Conway, Slymen, Cain, Chapman and Kerr, 2002).

The IPAQ itself (see Appendix VI) was piloted in 1998-1999 of which eight versions of the questionnaire (four short and four long) were developed (Hagstromer, Oja and Sjostrom, 2007). With the objective of developing a universally standardised self-reported measure suitable for assessing population physical activity across countries, this measure was essentially developed as a public health, cross comparative surveillance tool (Lee, Macfarlane, Lam and Stewart, 2011). To enhance cross national surveillance measures, the IPAQ was designed to allow country-specific examples of activities within work, domestic, transport and leisure with specific guidance upon such '*adaptation and translation*' (Bauman, Ainsworth, Bull, Craig, Hagstromer, Sallis, Pratt and Sjostrom, 2009, p.55). The IPAQ currently exists in many

languages and its validation in translation has been prolifically explored (Hallal, Gomez, Parra, Lobelo, Mosquera, Florindo, Reis, Pratt and Sarmiento, 2010).

Trialled and evaluated in 12 countries (using different languages), this questionnaire is administered primarily via self-administration and telephone interview and consists of several questions exploring varying intensities of physical activity within the 'last 7 days' or 'on any week day' (Hallal, *et al,* 2010). The objective of this one week recall questionnaire is primarily to determine the frequency and duration of moderate and vigorous physical activity (Rzewnicki, *et al,* 2002). Currently this monitoring tool for physical activity and exercise is administered in two formats, either as a long version which provides a detailed comprehensive account of daily physical activity habits, pertaining to housework, leisure, occupational and transport activities. Alternatively, the short version is administered comprises of walking, moderate and vigorous intensity activity and incorporates sedentary behaviour (Hallal, *et al,* 2010). As identified by Bauman *et al* (2009) a standardized approach to handling IPAQ data, treating missing data and the classification of respondents according to activity categories have been developed, underpinned by a specific set of rules which outline handling extreme, logical and plausible values and response consistency.

Drawing on a plethora of IPAQ literature, IPAQ studies vary from language uses, in which the original version is linguistically translated into varying languages (Gauthier, Laviviere and Young 2009; Graff-Iversen, Anderssen, Holme, Jenum and Raastad, 2007), correlation studies between socioeconomic and demographics using samples from diverse populations (Rhodes and Pfaeffli, 2010) and the validity of the IPAQ as a self-reporting tool (Tomioka, Iwamoto, Saeki and Okamoto, 2011; Kim, Park and Kang, 2012; Fillipas. Cicuttini, Holland and Cherry, 2010), further modification for

those with physical impairment and/or disability and comparatives with other self-reporting questionnaires and/ or the use accelerometers to name a few. However, subsequent to self-reported physical activity it has been widely documented that self-reporting can subsequently lead to overestimation of physical activities; often resulting in small scale studies being underpowered by group differences. However the use of self-reporting tools within studies exploring physical activity levels and sedentary behaviours are often subject to validation critique. As a plethora of studies have explored both the under reporting of sedentary behaviour and/or the over reporting of physical activity in analogous physical activity questionnaires (Barwais, Cuddlhy, Washington, Thomas and Brymer, 2014, Craig, *et al*, 2003), more specifically with demographic groups such as those targeted in this study (Jakicic, Polley and Wing, 1997). The use of self-reported questionnaires in this milieu is discussed in significantly more detail within Chapter 1 of this study, thus subsequently evaluating it effectiveness in measuring physical activity. Despite these caveats in design and challenges in implementation, the IPAQ's ease in collating standardised data means it continues to be a well-used tool for the evaluation of physical activity intervention. However it can be argued that its use in comparative, dichotomous measurement of physical activity is essentially its primary purpose (i.e. sedentary versus active), and the preferred and accurate measures of physical activity should be aligned with the use of more objective measure (Filipas, *et al*, 2010).

4.13.3 Attendance Register

Volunteers and those who delivered physical activity as part of the BCiM were required to maintain attendance registers. The purpose of which was to identify attendance patterns and highlight those who engaged or disengaged in the programme. Although

this was a standardised approach to measuring attendance, the limitations to this were volunteers often failed to maintain attendance registers.

4.13.4 - Quantitative Methods limitations

As highlighted above there are limitations to the quantitative methods of data collection. As argued by Rzewnicki, *et al*, (2002), reliability of the individuals recall often leads to mis-reporting when relying on a participant to remember past activity. Both single measure assessment and IPAQ rely on recall and self-reporting and therefore have limitations as this account is often not accurate. Strength within the IPAQ is found in its ability to provide a dichotomous measure of activity and is a cheap, easily accessible tool however unlike objective measures it does not provide an accurate account of activity and/or METs calculation.

There were further limitations highlighted in the attendance registers gathered, this occurred when there were inconsistencies in those delivering the sessions and due to the constraints of paperwork responsibilities experienced by the session volunteers (as discussed in Chapter 6).

4.13.5 Statistical Analysis

SPSS was used as a database to analyse the quantitative data collected from the demographic data, attendance registers and IPAQ. Analysis frameworks for the IPAQ were provided by the IPAQ Research Committee (www.ipaq.ki.se 2005) (see Appendix XI). The items in the IPAQ were structured to provide separate scores on low, medium and vigorous intensity activity. Computation of the scores required summation of the duration of activity and frequency. Criteria for duration and intensity is outlined in the questionnaire.

In accordance to the IPAQ Research Committee guidelines the data collected with the IPAQ can be equated into a measure of activity known as METs to provide a score of MET-minutes. METs are multiples of a resting metabolic rate and computed by multiplying the MET score by the minutes of activity performed. Box 4.4 below provides an outline of MET calculations in relation to the intensity of activity.

Box 4.4 Outline of MET Calculations in Relation to Activity Intensity
Low intensity (walking) METs - minutes/week = 3.3 METs *minutes *days Moderate intensity METs - minutes/week = 4.0 METs *minutes *days Vigorous intensity METs - minutes/week = 8.0 METs *minutes *days

To calculate a total physical activity MET score for an individual, a sum of walking (low intensity) + Moderate + Vigorous MET - minutes/week scores = total METs - IPAQ score. Data collected was used to form a continuous measure and reported as median values and interquartile ranges,

Descriptive statistics from the participants were analysed and a comparison of data between those who were inactive and active was subject to analysis. Repeated measures ANOVA results of MET scores from the IPAQ were used over four time points (baseline, 3 months, 6 months and at 12 months) of which standard deviation results were gathered.

4.14 - Qualitative Methods - Measuring Behaviour Change

The researcher administered semi-structured in-depth interviews with from both engaged and disengaged participants. These were carried out at either the home, the

centre the activity was undertaken or at eateries close to the participants home. These interviews occurred during the process of the intervention for engaged participants and following disengagement for those who had left the programme following 1 or 2 weeks of attending. The researcher used a purposive sampling technique to select the participants to interview. Purposive sampling is defined as the selection of participants based upon a specific purpose associated to answering the research study question (Teddie and Yu, 2007). Outlining the typology of purposive sampling Teddie and Yu (2007; p.81) suggest three broad categories of which, category A; sampling to achieve representativeness or comparability was applied to this study. The types of samples within this category is as follows;

- Typical case sampling
- Extreme or deviant case sampling (outlier sampling)
- Intensity sampling
- Maximum variation sampling
- Homogenous sampling
- Reputational case sampling

Participants were selected for interview depending on whether they engaged or disengaged with the programme. Those participants who were engaged in the project provided interviews without incentive. However the researcher experienced significant challenges in gaining interviews from those who had disengaged from the programme. Therefore the researcher chose to incentivise disengaged participants to encourage further engagement in the interview process. The payment of research participants to provide interviews is often looked upon as ethically and morally questionable Grant and Sugarman, (2010). However there is a dichotomy in academia when incentivising research participation due to ethical constraints and freedom in research participation. It has been argued that financial rewards can be used as a tool to coerce participants, specifically if there are financial constraints with that group (Boddy, Neumann,

Jennings, Morrow, Alderson, Rees and Gibson, 2017). However there is an alternative viewpoint that such incentives are essentially a token of gratitude and acknowledgement for their time. It is argued that when gathering perspectives of those who are socioeconomically disadvantaged, in a research area of importance such as tackling inactivity, incentivising was necessary (Mann, Drayson and Bagnall, 2017). Again the disengaged participants were purposively selected due to locality. 40 disengaged participants were approached respective of the hub in which they resided to ensure a spread of data. Of which 12 disengaged participants were interviewed.

4.14.1 Content of Interviews

The aim of the interviews were both inductive and deductive in nature. The purpose of deductive analysis was based on identifying the processes of change experienced by those who had attended the programme based upon the TTM for behaviour change. The inductive analysis of this data was to identify the impact and effectiveness of the programme, and the effect of provision delivery using community volunteers.

It was through deductive measures that this transition was explored applying the integrated TTM to identify transitions in life change (Bui, *et al*, 2013; Tavares, *et al*, 2009; Velicer, *et al*, 1998). As a model for examining processes of change, the TTM has been used and applied consistently within health and cessation literature (as discussed in Chapter 2). As proposed by Prochaska and Velicer (1997), the TTM framework provides a contextualised understanding in the development of stages of change, strategies to enable such modification, the pros and cons to adhering to behaviours and individual self-efficacy. Therefore it was the models multi-dimensional design which enabled the researcher to identify the facets, variables and processes of participant change and self-efficacy (Bridle, *et al*, 2004; Wright, *et al*, 2009).

As a deductive analysis framework the objective of the interviews was to identify the BCiM participant's process of change from inactive to active, using the TTM. Developing the stages of change, process of change, decisional balance and efficacy experienced by the participant. However, further exploration was conducted to develop the decision balance variables of this process to identify the social bonds created (or not) within the BCiM communities. This process was inductive and primarily used to identify the effectiveness in the project to provide a sustainable intervention or to highlight challenges or barriers to community provision.

To develop the inductive analysis interviews were exploratory allowing the participant to report their experience from their perspective but were interviewed through a guided schedule (See Appendix VII). Interviews aimed to explore emotions prior to engaging in the BCiM, what made them consider the programme and feelings towards the participants they were exercising with. The purpose of this was to develop an understanding of the social processes and dynamics of the community. Thus illuminating the effects the programme and possible sustainability. Those who disengaged from the programme were asked why they had dropped out and if they had continued to exercise.

4.15 Analysis of Behaviour Change Interviews

Recordings of the interviews were transcribed verbatim and anonymised. The participant was then allocated a code number and was kept to identify them in the analysis framework. This would mean that the researcher could identify them as either being an engaged participant or disengaged, highlight the themes identified and the hub the participant attended.

The interview data was analysed using a framework approach as described by Ritchie and Spencer (1993). The framework approach was a practical form of qualitative data analysis developed for the use in applied social research (Sparkes and Smith, 2015). Box 4.5 summarises the stages of analysis.

Box 4.5 - Framework Approach for the Analysis of Interview Data

Familiarisation - Immersion in raw data (this included listening to audio-recordings, reading transcripts and field notes) in order to gain an overview of the data
Identifying the Stages of Change - Identifying the key transitions of change, processes for change, decisional balance and efficacy
Identifying the Thematic Framework - Identifying key concepts, themes and issues from the data, produce an index/framework for subsequent exploration of the data
Indexing - Application of the thematic framework
Charting - Data from all transcripts arranged according to themes, producing 'charts'
Interpretation - The charts are used to identify patterns in the data, find associations between themes and create typologies. This develops explanations and meanings within the findings.

Adaptation of framework from Ritchie and Spencer (1993) and Sparkes and Smith (2015).

Transcripts were then indexed and coded according to the thematic framework by myself and another observer. The coding framework was guided by the interview schedule and with additional themes (See Appendix IX). Following this analysis and development of framework the data was then subject to interpretation.

4.16 Qualitative Methods - Content of Volunteer Research

The fundamental delivery of physical activity and sport for the BCiM was the community volunteer and through the exploration of current sporting policy (Sporting Future: A New Strategy for an Active Nation), the volunteer is becoming an essential

element to physical activity and sport in community provision (DCMS, 2015). Therefore a fundamental element to this research was to explore the impact of community volunteering, the volunteer experience and the role of the volunteer upon promoting the adherence to physical activity. Additional aims were to explore the volunteer's journey, motivations, barriers and challenges to the volunteering experience.

Drawing on Padgett (2012) suggestions of conducting a multistage research design using these methods to underpin evaluation, the volunteerism element of this research draws on qualitative methods. Although a pragmatist approach has been adopted for this study, this stage of the research is distinctively inherent with that of an interpretivist conceptual framework. The theoretical lens used within this element of the research was drawn from socio-constructionism with significant influence of critical realism (Bryman, 2008; Sparkes and Smith, 2013). The premise of which is underpinned by literature identifying the challenges to engaging harder to reach communities in volunteering and the disparities in economic status for those who volunteer (Eley and Kirk, 2002; Scott, 2011). As highlighted by Nichols (2013), those who are economically inactive are least likely to volunteer, furthermore those within the highest four socio-economic classes are increasingly like to volunteer.

To capture the journey of the BCiM volunteer, case study investigations were conducted throughout volunteers in the 4 boroughs of the project. As suggested by Sparkes and Smith (2015), '*is not a methodological choice but a choice of what is to be studied*' (p.54). Drawing on Riessman and Quinney (2005) the case study inquiry is supported by the philosophical assumptions of interpretivism, in which it commits to the assumption of theoretical insight through generalisation. Drawing on Stake (2008) analysis of case study, Boblin, Ireland, Kirkpatrick and Robertson (2013) suggest both

a process of individual enquiry and the product of that inquiry. Through the identification of varying case studies, he identifies '*the intrinsic, instrumental and collective case study*' (p.445). Intrinsic case studies principally explore the individual where understanding is not based upon theory building. For Stake (2008), the instrumental case study is explored to provide insight with the premise for generalisation. For the basis of this exploration a collective study of instrumental case studies across all BCiM zones has been used to investigate this phenomenon. The premise for adopting a comparative case study approach was to enable a detailed analysis and comparison between volunteer experiences and motivations (Gibbs, Campbell, Akintola and Colvin, 2014). Moreover specific aims of this approach were to move from general descriptions to providing theoretical insight (Druckman, 2005). To enable a level of comparability throughout this longitudinal collective case study, each case study was analysed using a framework that explored the extent to which capital was developed, motivations and aims were developed and achieved and the impact of the BCiM project.

The BCiM volunteers were purposively selected upon their (dis)engagement of the project and the hub in which they volunteered. The fundamental objective was to determine the phenomenon of volunteering within areas of high socio-economic inequality and its effectiveness in providing sustainable community provision. Therefore the collective case studies for this thesis was threefold in which volunteers where selected due to their engagement, disengagement and their journey from BCiM participant to volunteer. Specific objectives of the BCiM volunteer program were to develop effective sustainable provision, of which it was the aim to develop participant ownership of sessions. Thus an inductive exploration was conducted to investigate this longitudinal collective of case studies.

The project activators primarily managed the BCiM volunteers and therefore the majority of volunteers were actively engaged in the research process. The volunteers were purposively selected based upon the BCiM zone in which they were delivering and upon the duration of their engagement with the project. There were 3 distinct groups within the BCiM; those actively volunteering; those who disengaged from the volunteering process and those who had transitioned from a participant to volunteer. Therefore a maximum variation sample strategy was used to ensure heterogeneity in the research process. Although this sampling process was multi-variant, the approach itself was criterion based. All volunteers approached had gone through the induction training and had begun or completed a relevant qualification with the intent of delivery for the BCiM. Or volunteers were required to be in the process of supporting a delivering volunteer.

Volunteers were contacted via telephone to arrange interview of which 10 engaged, 10 disengaged and 6 former participant volunteers were interview. Interviews were conducted in local community centre, the location of the activity session and at the homes of volunteers. Interviews were recorded and later transcribe verbatim for analysis. Analysis was carried out separately from the interviews collected by participants, however shared themes were identified from the datasets and a comparative analysis was undertaken. The comparative analysis was used to aid the case studies and narratives to identify the impact of the volunteers in their community roles.

4.17 Programme Activators and Field Observations

Informal interviews were additionally conducted with programme activators throughout the delivery of the BCiM to assess their perceptions of the fidelity of the programme,

using semi structured interview schedules (see Appendix VII). The content of these interviews were to explore the development of the programme, identify the successes and challenges faced in its implementation, retention and recruitment and the sustainability of sessions. Analysis of this was documented alongside field observations (Appendix XII), in which shared themes were identified and comparisons to other datasets were undertaken.

4.17.1 Field Observations

The researcher conducted field observations by attending activity sessions and meetings with activators, volunteers and stakeholders. The intention of this was to develop an understanding of the social processes and dynamics of the communities alongside building rapport with participants and volunteers. Drawing on the work of Seale, (2005) it is suggested that the researcher is as actively present to build professional rapport and trust with research participants to aid the research process. In this instance the researcher was aware that the communities in the programme were used to having 'outsiders' in their communities to either deliver or evaluate social intervention.

Section IV - Process and Outcome Evaluation

Section III provides a detailed outline of the quantitative and qualitative data collected. This section will describe how the aspects of the mixed methods data collection were integrated at the analysis and interpretation of the data provided information for the aspects of the evaluation. The integration of the process and outcome evaluation will be presented in the following results chapter

4.18 Process Evaluation of the Delivery of the Intervention

The delivery of the intervention was assessed by a process evaluation and whether the delivery of this pilot intervention was implemented as intended. Some of the data collection methods contributed to multiple aspects of the evaluation, and adapting the framework for process evaluation (see Table 3.5, Chapter 3) from Linnan and Steckler (2002), the researcher was able to develop a framework for this analysis. When exploring Linnan and Steckler's original framework for implementation, a composite score was required to indicate the extent to which implementation was received. This was deemed too difficult to acquire due to challenges the researcher faced in gathering data and participant engagement in the quantitative methods. A composite score was therefore omitted from this process evaluation due to these challenges. To overcome this a verbal commentary on the overall implementation was sought from participant, volunteer and activator interviews.

Interviews with participants who disengaged from the programme were asked additional in detail the reasons for their withdrawal as this was an integral element to explore adherence and changes in behaviour. The perceptions of the volunteers and project activators as additionally important in identifying the implementation and efficacy of the BCiM. The below table 4.4 develops the framework for the process evaluation

Table 4.4 Framework for the Process Evaluation

Component	Definition	How Assessed in Evaluation

Context	Wider environment in which the BCiM is embedded	1) Review of literature for national context 2) Acquire knowledge of existing provision and services in the Black Country area
Recruitment	Identifying the success of methods to approach and recruit participants	1)Baseline questionnaire on where they had heard about the programme 2) Community questionnaire to see marketing reach (see Appendix 8)
Reach	Degree to which an intended participant engages in the intervention	1) Identify the socio-demographics of participants at baseline 2) geographically map the participant postcodes in relation to the activity session 3) monitor attendance registers for participants
Dose Delivery	The 'amount' of activity provided by the intervention	1) Monitor the session's duration and changes to the programme. 2) Activators quarterly progress reports
Dose Received	The extent of which the intervention engages the target population and the extent of active participation	1)Attendance registers

Fidelity	Measuring the efficacy of the intervention and the extent to which the intervention had delivered as planned	1)Participant interviews 2)volunteer interviews 3)Activators progress reports 4)researcher field notes and observations
Perspectives of the participants, volunteers and activators	The extent in which the target participants engaged and (dis)liked the delivery in order to develop a model and suitable evaluation in future initiatives	1)Interviews with participants and volunteers 2) interviews with activators

Source: Adapted from Linnan and Steckler (2002)

4.19 Outcome Evaluation to Assess Effectiveness

The initial intention for this evaluation was of a RCT, however as previously indicated the data collected from the control group was limited. Therefore a process and outcome evaluation was undertaken. Using a mixed methods approach, differences in the outcome measurements were integrated throughout the study. Quantitative outcome measures were identified from increases in physical activity scores from the IPAQ baseline measures and 3, 6 and 12 month scores. This data was analysed for statistical differences from the demographic data obtained.

The quantitative data was integrated with the qualitative data methods at point of data analysis and then at data interpretation stage. The findings from both datasets were converged in analysis to identify the outcomes of the intervention. Processes of change in participants, increases in wellbeing, social cohesion and social capital in volunteers were explored. These outcomes were explored through interviews, which additionally illustrated any short-term outcomes of the intervention.

4.20 Conclusion

This chapter illustrates the data collection methods used in this mixed methods study. By outlining the research objectives, targeted outcomes and participants, this chapter has developed appropriate framework for the analysis of the data. The following chapter (Chapter 5) will focus on the results of the IPAQ and case studies before moving on to examine the findings Chapter 6 for a Process Evaluation

Chapter 5 - International Physical Activity Questionnaire and Case Study Analysis

5.1 Overview and Introduction

This chapter develops the outcomes and results that underpin the primary evaluation of the Black Country in Motion programme. These results highlight the effectiveness of the BCiM to reduce physical inactivity in areas of high social and health inequalities, through the training, development and deployment of community volunteers. As described in Chapters 3 and 4 this evaluation was a mixed methods study, therefore this chapter will identify the findings from each method used. Section I of this chapter will deliver the findings from the quantitative data, exploring the results from the International Physical Activity Questionnaire (IPAQ), attendance records and research engagement. Section II develops case studies of BCiM physical activity groups, exploring behaviour change using the transtheoretical model framework and psychosocial variables that have influenced participant engagement, volunteering or disengagement of the project. Section III of this chapter explores the experiences of those who had disengaged from the project, examining the factors which influenced their initial engagement and subsequence disengagement.

Further examination of the experiences of the BCiM participants highlighted a number of prerequisites to engagement. This too is examined alongside the factors that influenced participants to disengage from the intervention.

5.2 - Overview of Evidence Base

The Black Country in Motion was initially a pilot project when explored the impact of community led provision. Community based initiatives are traditionally used to tackle social and economic issues. However due to the UK's current inactivity crisis, such

interventions are used to tackle sedentary behaviours and inactivity. The evidence for community based intervention is mainly derived from two research perspectives; that of intervention efficacy and effectiveness. Intervention efficacy identifies whether a health initiative produces the expected results under ideal circumstances, whereas intervention effectiveness measures the beneficial effect in real world situation (Courneya, 2010). When exploring behaviour change interventions there is unequivocal evidence to the need to bridge the gap between efficacy and effectiveness intervention (Beedie, *et al*, 2014)

To maintain a healthy lifestyle, it is recommended that 150 minutes of activity are undertaken per week (Public Health England, 2016) However research highlights that inactivity and insufficient activity is currently at 26% in the UK (BHF, 2016). Furthermore those who are long term unemployed or never worked are 37% more likely to be inactive. Physical activity initiatives within these groups has become an essential element to early health intervention (Ball, et al, 2015)

Community intervention has been an approach frequently used in an attempt to tackle physical inactivity (Koorts and Gillison, 2015). Commonly based on behavioural theory, community intervention is implemented with the aim of assisting participants in maintaining positive health behaviours (Marcus and Forsyth, 2009). However, in the current climate those who reside in areas of high socioeconomic disadvantage remain inactive, thus the increasing prevalence of activity initiatives.

5.3 Context of the Black Country in Motion

With insight gathered from survey data, Cradle to the Grave (Black Country BeActive, 2012) and the Active Peoples Survey (Sport England, 2012), it was highlighted that a

community intervention aimed to increase physical activity was required. The Black Country in Motion (with the aid of this evaluation), aimed to explore the impact of community member led provision.

As a community intervention, the Black Country in Motion essentially aimed to increase physical activity and volunteering opportunities to develop a sustainable provision, specifically in areas of high socioeconomic disadvantage. The delivery of the intervention was within 4 boroughs of the Black Country area in the West Midlands. The areas of provision were Dudley, Sandwell, Walsall and Wolverhampton, where inactivity and social deprivation were evident. The activities provided for this intervention were within community and/or leisure centre settings and delivery was by community volunteers or sports coaches. Volunteers were recruited from local services and within activity groups, specifically with the intent of increasing social capital and employability. It was considered in the design of the BCiM, that once provision was established within a community group, participants would then take ownership of this activity, undergo training and deliver the activity. The premise of this framework would therefore to provide a sustainable provision within these communities.

The evaluation of the BCiM was undertaken to highlight the projects effectiveness in increasing physical activity in line with the recommended 150 minutes per week. As previously highlighted, measuring impact and effectiveness in a real world setting is at times challenging. As a tool to demonstrate the effectiveness of this programme (and as part of a nationwide initiative), the International Physical Activity Questionnaire (IPAQ) was used to measure possible increases in physical activity. This questionnaire the participant to recall their activity, examining the intensity and duration of physical

activity over a 7 day period. Due to the limitations of this questionnaire in identifying the processes in which change occurred, semi- interviews were conducted with participants to explore their experiences and examine processes of change.

As this research is to evaluate if community led provision can influence the uptake and adherence to physical activity, exploration into those delivering provision was examined. To identify the effectiveness of this element of the BCiM, community volunteers and activity facilitators were interviewed. Further effectiveness was explored through the examination of social capital, social cohesion and employability

Section I Quantitative Data - International Physical Activity Questionnaire, Retention and Adherence

5.4 International Physical Activity Questionnaire

Akin to all intervention evaluations aimed to identify an increase in physical activity, the primary objective of the IPAQ is to survey population physical activity. It has been developed, tested and validated to determine weekly metabolic equivalents in an individual. The metabolic equivalent is described by (name) as the unit generated to estimate the amount of oxygen (energy) required by the body during varying intensities of physical activity. MET is measured based on what energy the body requires for an activity, for example: one MET is equal to the energy used whist the body is at rest. The harder the body works, the more oxygen required and the higher the MET. Researchers developing the IPAQ have matched physical activities to MET intensity levels. These vary from 0.9 MET's when sleeping to 18 MET's when sprinting at 10.9mph. Thus the more MET-minutes/week of exercise and physical activity undertaken by an individual, an increase in health benefits are expected.

As a predetermined measure to identify activity and MET's per week, the IPAQ was used to provide a standardised measure with all BCiM participants. This was essentially used to identify increases in MET scores to support the identification of intervention effectiveness. Baseline MET scores were collected at point of contact, followed by 3, 6 and 12 month measures. The purpose of using this tool was to identify the following indicators;

- % of participants increasing physical activity and meeting the recommended 150 minutes of activity per week
- Mean total of minutes of physical activity per week (+*SD*)
- Mean total of minutes undertaken of vigorous physical activity per week (+*SD*)
- Mean total of minutes undertaken of moderate physical activity per week (+*SD*)
- Mean total of moderate minutes undertaken of walking per week (+*SD*)

In total *n=728* IPAQ's were obtained at baseline to provide data on physical activity undertaken during the previous week. The mean and median MET-minutes/week of physical activity undertaken by the BCiM participants was *m=2662.78* (SD± 4263.83) and *mdn =1116* respectively. Table 5.1 displays the MET-minutes/week expenditure summary at baseline. Male participant MET-minutes/week expenditure at baseline was m=1041.14 (SD±5202.25) and was significantly different to female participant MET-minute/week at m=1621.63 (SD± 3720.27) at baseline.

Table 5.1 IPAQ MET Summary at Baseline

	Vigorous Activity	Moderate Activity	Walking Activity	Sitting Time	Total Activity
Mean MET-minutes/ week (±*SD*)	1004.82 (SD±2428.36)	823.61 (SD±1774.77)	1279.52 (SD±1929.27)	232.1 (SD±92.80)	2662.78 (SD±4263.83)

Median MET-Minutes/ week	156	0	0	240	1116

Using the IPAQ scoring protocol (See Appendix IX) to analyse the MET-minute/week data above, it was determined that 16.8% of participants were inactive at baseline. At baseline males were identified as being more active, reporting a mean total of 1365.61 MET minutes/week of vigorous to moderate physical activity per week, compared to females reporting 548.89 MET minutes/week of vigorous to moderate physical activity per week.

When examining the median MET scores it is identified that moderate physical activity and walking activity is 0, this is due to an incomplete dataset/missing data and therefore not having exact values to calculate the median scores. Although a median score does not use all information in the data set, it is shown in this instance to be less efficient than the mean scores provided.

5.5 Sport England's Target Intervention Group

Baseline assessment data and a single item measure identified the demographics of the participants that had registered for the BCiM programme. The purpose of this was to identify the demographics of the participants and to measure the duration of exercise undertaken 7 days prior to registration. An individual was considered inactive if they had reported less than <1x30 minutes/week of moderate physical activity during that period or alternatively had a MET score of below <99. At the time of analysis, *n=991* participants had registered and attended at least 1 physical activity session. However 263 IPAQs were either incomplete, ineligible or the participants were too active or under the age of <16 years of age. In total *n= 728* BCiM participants had met

the inclusion criteria discussed in Chapter 4. At baseline the degree of activity within this group ranged from 0-24000 MET minutes/day with an interquartile range of 60-390 minutes/day. In total, 17.6% (*n=122*) participants reported a MET score of between 0-99 MET- minutes/week, which for this study was categorised as inactive and not meeting recommended physical activity levels. In contrast, 82.4% (*n=572*) subsequently reported MET scores of greater than >99 MET- minutes/week. In this instance it could be suggested that due to the pressures of meeting KPI's and predetermined targets, those that had entered the programme were not the target demographic group and were subsequently more active.

5.5.1 Sitting Time (IPAQ data - Question 7 Appendix V)

In total *n=991* participants provided data on weekday sitting time. Prolonged periods of sitting is associated with mortality, such as cardiovascular disease, obesity, type 2 diabetes to name a few (Hammond, *et al*, 1997; Parmenter, *et al*, 2015; Josefsson, *et al*, 2014). This is independent of time spent undertaking physical activity. Median daily sitting time was 240 minutes/day. It was reported that sitting time often ranged from 0 - 1320 minutes/day with an interquartile range of 60 - 420 minutes/day. 55.1% (*n= 546*) sat for at least 5 hours per day, whereas 40.3% (*n=367*) sat for more than 6 hours a day. The differences in daily sitting time by gender revealed that males spent *m=256.54* minutes/day sitting, females spent *m=319.16* minutes/day sitting. Participants aged 16-25 and 65+ years of age sat for significantly less time per day than other age groups.

5.6 Monitoring Physical Activity

At the point of analysis 33% (*n= 991*) participants had registered with the BCiM and attended at least one physical activity session. However when the programme ceased

following a period of the 3 years of delivery, this increased to 40.1% (*n=1205*) of the initial target of 3000 participants. Drawing on registration data, 35.4% (*n=426*) of these participants attended more than 2> sessions. However engagement in the process of the monitoring of physical activity through the IPAQ was a challenge and it was determined that attendance of sessions and engagement in the research process significantly declined throughout the process (developed further in Chapter 6). It was identified that of the 991 participants who engaged in the programme at the point of analysis, 789 met the inclusion criteria and had provided eligible answers to the questionnaire. As a standardised measure of physical activity, the IPAQ was distributed to all participants entering the BCiM programme. It was reported that 122 of participants were classified as inactive at baseline, 30.3% (*n=37*) of the inactive were male and 69.7% (*n=85*) were female, with IPAQ scores between 0 - 42876. Any IPAQ scores that exceeded 960 MET/mins were removed in accordance to the IPAQ scoring protocol (See Appendix X).

Table 5.2 provides a breakdown of the engagement, withdrawal and ineligibility of the IPAQ at the interval stages of data collection, from baseline, 3, 6 and 12 month intervals. This table shows that there were limitations to follow up research engagement and in total 173 participants completed 3 month follow ups, 122 completed 6 months and this figure significantly reduced to 73 participants at 12 months.

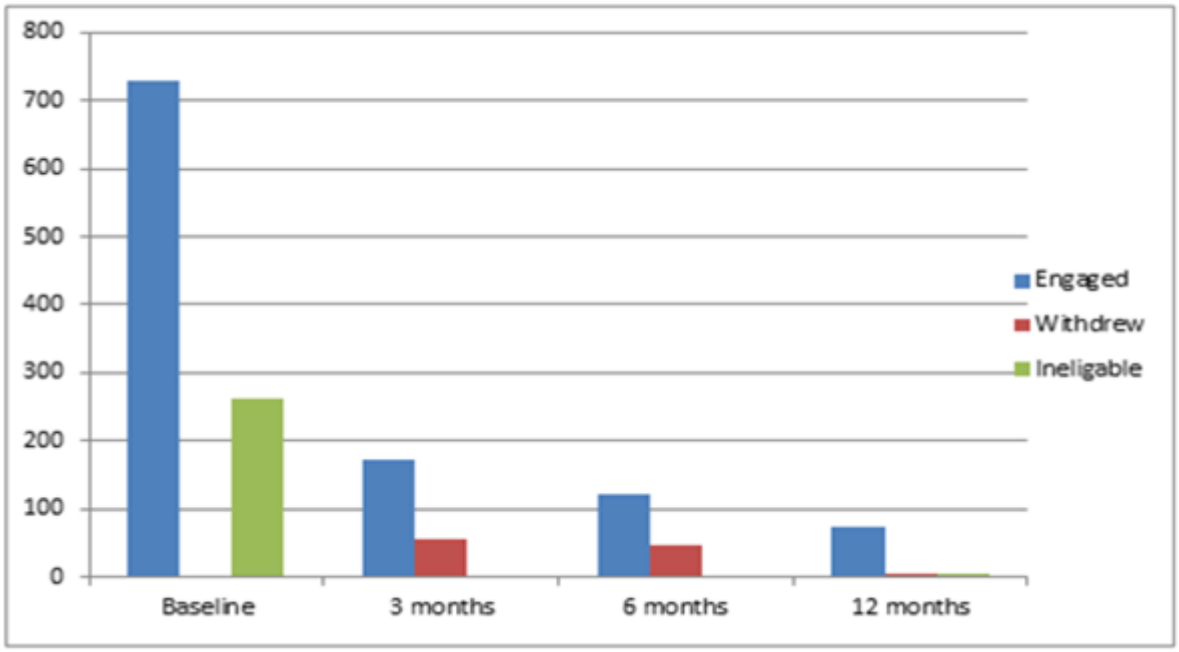
Table 5.2 Engagement in IPAQ data collection

	Participant Frequency	Follow up months			
		Baseline	3	6	12
Engaged	n= 991	n=789	n=173	n=122	n=73

Withdrew	n=107	n=0	n=55	n=47	n=5
Ineligible	n=263	n=202	n=0	n=0	n=0
Total		n= 991	n/a	n/a	n/a

Figure 5.1 outlines the engagement and withdrawal of participants in the BCiM programme, highlighting the decrease in follow up, monitoring and evaluation data collection.

Figure 5.1 Monitoring and Evaluation Engagement



5.6.1 What the IPAQ tell us

Although this measure of physical activity had some limitations within this demographic, it did however provide a dichotomous measure of activity at baseline, indicated the MET scores of participants from the previous 7 days and identified the duration of sitting time. Box 5.1 outlines what the IPAQ informs us;

Box 5.1 Outcomes from IPAQ data

Baseline

- n= 991 participants completed the IPAQ at baseline
- n= 122 failed to achieve the current physical activity recommendations
- n= 669 (70.1%) were achieving above >99 MET-minutes/week of vigorous activity at baseline

- n= 253 (25.5%) were achieving above >99 MET-minutes/week of moderate activity at baseline
- n= 386 (38.9%) were achieving above >99 MET-minutes/week walking at baseline
- n= 445 (44.9%) were sedentary or sitting for at least five hours a day at baseline

3 months follow up
- n= 173 (23.7%) completed the IPAQ at 3 months,
- n= 26 (15%) were achieving a mean total of >99 MET-minutes/week of vigorous activity
- n= 62 (35.8%) were achieving a mean total of >99 MET-minutes/week of moderate activity
- n= 73 (42.2%) were achieving a mean total of >99 MET-minutes/week of walking
- n= 91 (52.6%) were sedentary or sitting for at least five hours a day

6 months follow up
- n= 122 (16.7%) completed the IPAQ at 6 months,
- n= 29 (23.8%) were achieving a mean total of >99 MET-minutes/week of vigorous activity
- n= 48 (39.3%) were achieving a mean total of >99 MET-minutes/ week of moderate activity
- n= 60 (49.2%) were achieving a mean total of >99 Met-minutes/week of walking
- n= 56 (45.9%) were sedentary or sitting for at least five hours a day

12 month follow up
- n= 73 (10%) completed the IPAQ at 12 months,
- n= 29 (39.7%) were achieving a mean total of >99 MET-minutes/week of vigorous activity
- n= 23 (31.5%) were achieving a mean total of >99 MET-minutes/ week of moderate activity
- n= 25 (3402%) were achieving a mean total of >99 Met-minutes/week of walking

n= 34 (46.6%) were sedentary or sitting for at least five hours a day

5.6 Research Drop out and Disengagement

To measure the effectiveness of the BCiM intervention in regards to measuring increases in physical activity, engagement in the research process was essential. A breakdown of engagement in the research process is developed in Chapter 6 (see Table 6.10). Breakdown in disengagement per hub is explored in Table 5.3

Table 5.3 Disengagement in the Research Process per Hub

		Disengaged	Engaged	Total
BCiM activity zone	Castle and Priory	116	13	129
	Netherton and Woodside	11	0	11
	Smethwick	51	0	51
	Tipton Green	55	3	58
	Blakenall	61	0	61
	Bentley and Darlaston North	68	3	71
	East Park	44	3	47
	Bilston East	112	4	116
	Total	518	26	544
	Missing			184

Table 5.4 examines the disengagement in the research process examining ethnicity drop out. Results identified that there was a significant disengagement from BME groups and those that opted to not specify their ethnicity.

Table 5.4 Disengagement in the Research process examining Ethnicity Drop outs

		Dropped out	Engaged	Total
Ethnicity	White	353	122	375
	Mixed	30	23	52
	Asian	34	13	37
	Black	22	4	24

	Other	4	0	4
	Preferred not to Specify	81	0	81
	Total	564	164	789

5.7 Analysing the IPAQ

METs values were used to assess the changes in behaviour. Prior to conducting the main analysis, data was cleaned for accuracy with the view of removing outliers. Following an analysis of the IPAQ data to determine increases in physical activity, it became apparent that there were no significant changes to report. Furthermore due to the high attrition rates in this study it was considered that this method of analysis may not be suitable. Therefore the data analysis focused on answering two questions. What were the demographic characteristics of participants who remained in the intervention and completed all measures, and how did they compare with the participants that dropped out of the programme and research process. There was a significant difference between the participants that had reports inactivity than those that had specified some activity at baseline.

In terms of efficacy, the follow up IPAQ data collected at 3 months, 6 months and 12 months were examined to investigate if participant physical activity significantly improved. Whilst the intervention was hypothesised to increase physical activity in the BCiM participants, the increase in the inactive group should have been significantly more than the already active group.

Descriptive statistics for participants over time are contained in Table 5.5 and a comparison of data between those that had identified as inactive at baseline and those

that reported being active in Table 5.6. Results revealed that 122 participants reported MET scores of below <99, with 572 participants reporting scores of greater >99 and thus being classified as active. A comparison of data between those that were inactive and active at baseline indicated significant differences (Wilks lambda 5,791 = .88, p < .001, Partial Eta2 = .12). Results indicate that the active group were younger, were physically active for more days per week as expected. The inactive group uniformly reported to engage in no vigorous activity, thereby offering a degree of support for the validity of this categorization of data and that self-report is likely to be accurate when recalling intense exercise as this would represent a significant experience for that individual.

Table 5.5 Descriptive data through Time

	Baseline		3 months		6 months		12 months	
	M	SD	M	SD	M	SD	M	SD
Days per week of vigorous activity	1.10	1.78	1.08	1.69	0.92	1.59	1.05	1.64
Time per week doing vigorous activity	32.20	63.36	45.84	84.49	43.48	89.76	51.37	99.02
Days per week of moderate exercise	1.59	2.34	2.43	2.14	3.14	3.35	3.08	2.22
Time per week doing moderate activity	44.73	83.60	97.17	116.85	116.42	140.01	130.48	152.37
Days walked for at least 10 mins at a time	4.57	2.49	4.54	2.39	7.33	22.72	4.48	2.30

Time walking on one of those days	69.94	97.31	78.01	91.02	106.53	131.06	96.23	117.30
Sitting time	233.73	210.36	294.74	214.31	255.00	206.93	238.36	205.18
Total physical activity MET-minutes/week	3104.78	5021.90	4505.45	6152.52	12046.85	22655.41	4342.37	4030.73
Vigorous MET-minutes/week	1004.82	2428.36	1397.14	3827.90	1380.69	3706.78	4342.37	714.44
Moderate MET-minutes/week	823.61	2533.70	1758.57	3367.25	2155.86	3725.60	2120.87	2789.35
Walking MET-minutes/week	1279.52	1929.27	1349.74	1675.77	8510.30	33631.96	1658.94	2824.12

Table 5.6 Comparative data between inactive and active participants at baseline

	Inactive (N=128)		Active (N=669)			
	M	SD	M	SD	F 1,795	Partial Eta2
Age	43.69	20.59	36.35	18.33	16.53*	.020
How many days per week do you take in vigorous physical activity	0.14	.64	1.30	1.886	47.48*	.056
MET vigorous intensity activity	.00	.00	1043.83	2570.54	21.09*	.026
MET moderate intensity activity	1.25	9.96	867.35	2002.64	23.92*	.029
MET low intensity activity (walking)	10.31	27.23	1668.58	2408.03	60.64*	.071

*P<.0001

Table 5.7 Comparative data for inactive and active groups at baseline for MET scores over the duration of the intervention

	Inactive at Baseline		Active at Baseline	
	M	SD	M	SD
Baseline	21.00	30.51	3112.78	5048.39
3 months	4103.72	5607.08	4177.33	4972.61
6 months	3681.82	4584.13	9218.95	26784.65
12 months	2167.91	2590.07	5544.75	7550.49

Data over time is contained in Table 5.7. Table 5.7 indicates, 69 participants reported data at the 4 points. Descriptive statistics indicated that activity increased over time (see Table 5.7). Repeated measures ANOVA results of METS score over the four time points indicated no significant interaction effect (F 3,59 = 1.76, p = .16, partial ta2 = .08) with a significant increase in METS scores over time (F 3,59 = 4.41, p = .007, partial eta2 = .18). As Table 5.7 indicates, standard deviation results indicate a large variation in responses and therefore, METS scores in some participants increased hugely, whilst it reduced greatly in others.

Table 5.8 Logistic regression to predict programme disengagement from programme adherers

				95% C.I. for EXP (B)	
	B	*p*	Exp (B)	Lower	Lower
Employed	.665	.036	1.945	1.046	3.618
Unemployed	-18.681	.999	.000	.000	
Retired	.372	.332	1.450	.684	3.076
NEET	.336	.316	1.400	.725	2.702

Education	-1.668	.008	.189	.055	.644
Constant	-2.522	.000	.080		

As Table 5.8 indicates, with such large drop-out rates, we examined if we could identify drop-out from adherers from employment status and gender using logistic regression. Results revealed a significant effect (B = -2.40, p < .001) with being employed and compared with the other, the odds of completing is twice as likely if the participants were in employment as in other groups. Results also show that being in full-time education associated with adherence. Participants in full-time education were as much as five times more likely to not complete than participants in the other classification. Further analysis revealed being currently employed (B11= .64, p = .04) and being in education (B = -1.66, p = .010) associated with adhering to the programme.

5.8 Summary

Using the IPAQ as a measure of physical activity intensity and duration in this demographic group had its limitations, due to disengagement from the research process and high attrition rates in the intervention itself. It is suggested that as a medium for gathering data to measure increases in physical activity, the use of the IPAQ for this demographic group is not suitable. However this physical activity tool essentially provided a dichotomous measure of identifying which demographics were active and which participant demographic would be likely to adhere to exercise.

However, it is further suggested that attrition to the intervention and research process was impacted by the use of this physical activity tool (as further discussed in Chapter 6; see section 6.11). Further examination of the IPAQ is explored in Chapter 8, in which the researcher discusses the strengths and limitations of this study

Section II - Case Study Analysis - Processes of Behaviour Change and the Transtheoretical Model for Behaviour Change

5.9 Overview and Introduction

To explore the impact of this community led intervention, the examination of case studies of selected physical activity sessions was undertaken. The case studies identify the processes in which participants have undergone behaviour change, the psychosocial variables that have influenced the participant's adherence or disengagement with the programme. This draws on the transtheoretical model for behaviour change framework to identify processes of change. Case studies that adopt a narrative methodology are central to health related research, in that they offer opportunity to examine the stories people tell (Radley and Chamberlain, 2001).

To create a sustainable model for this intervention, it was thought in its design that participants would be given the opportunity to deliver activity in their own communities. On this basis the case studies explored examine this process of change and the impact this has upon sustainability. As this research was embedded in a 'real-world', community based context, analysis of change and the impact of community was explored using case studies. The case studies explore an individual physical activity session. A penned portrait of each session is identified alongside the social dynamics and subsequent impact of the BCiM project. The sessions explored are as followed;

- A multi-sport/ circuits and running sessions in Dudley.
- A couch to 5K running session delivered in Castle and Priory hub in Dudley
- A couch to 5K running session in the Tipton Green hub in Sandwell.
- A walking football / football session in the hub of Bentley and Darlaston, Walsall,
- A Tai Chi and Gentle exercise session for older adults in Bilston East hub in the ward of Wolverhampton East

5.10 Theoretical Overview

Despite emphasis of the benefits of adopting health promoting behaviours, such as engaging in exercise, the majority of individuals in the Black Country area often

sedentary. Identifying factors that influence health promoting behaviours and wellbeing within this intervention was fundamental when examining effectiveness. Therefore processes of behaviour change and motivations to take up and adhere to exercise were explored. There have been significant limitations to studies that categorize behaviour change as a dichotomous outcome, with an oversimplified idea that behaviour change is an all or nothing phenomenon. The complexities of exploring stages of change through individual cognition and social processes are fundamental when examining effective community intervention.

As identified in the previous section of this chapter, the IPAQ primarily identified the duration and intensity of physical activity. However this questionnaire is limited in identifying the factors responsible for the interventions effectiveness. Therefore the transtheoretical model (TTM) for behaviour change was used as a framework to identify such factors. The TTM examines the processes, stages and variables an individual experiences when adopting changes in health behaviour (Velicer, *et al*, 1998). The facets explored in this psychosocial framework include the stages of change (precontemplation, contemplation, preparation, action and maintenance), decisional balance, and processes of change, self-efficacy and temptation (Prochaska and DiClemente, 1984; Prochaska, *et al,* 2002).

The TTM's stages of change within this framework are characterised by facets of readiness and intention to facilitate change (Choi, Chung, Park, 2013). The first stage of this model, precontemplation stage is explained by Prochaska and DiClemente (1984) as an unawareness of unhealthy or risky behaviours. Norcross and Prochaska (2002) suggest these individuals are uninformed of their behaviours or have been unsuccessful in prior change and see change as unrealistic or impossible. At time this

behaviour is often seen as not requiring change. The second stage is the contemplation stage and it is in this phase that an individual identifies the need for change. Norcross and Prochaska (2009) identify this phase of change as a stage of ambivalence, in which the individual will undergo a process of decisional balance, evaluating the pros and cons of change. During the preparation stage, the individual has decided to change their health behaviours. This stage requires the individual to assess and plan for the processes and actions required for change. The fourth stage is the action stage, the individuals have changed their health behaviours and are in the practice of the plans developed in the preparation stage. This transition often lasts between 1 day and 180 days in which the individual is continuously choosing healthier behaviours, confronting challenges to these behaviours and developing strategies to enable maintenance. Maintenance is the fifth stage of this model, the individual has now engaged in their new behaviour for at least six months and are committed to this behaviour.

De Meester, Van Dyck, De Bourdeaudhuij, Deforche and Cardon (2013) develop this model further by identifying variables which support these transitions. These variables include self-efficacy, decisional balance and social support. Self-efficacy is defined as belief in one's capacity to execute a course of action required to produce attainments. It is consistently shown as an indicator of adaption or maintenance of physically active behaviour (Williams and French, 2011), therefore a significant variable required in this process. The variable of decisional balance, is used by an individual to explore the pros and cons to continuing behaviour or undergoing behaviour change. The self-explanatory variable of social support highlights the support given to an individual to take action or maintain physical activity behaviour change. Social support often refers

to the support provided by family, those who are within the same community and/or undertaking a similar activity.

The following sections of this chapter will develop the stages of change, transitions and psychosocial variables that have influenced participation, adherence and attrition in this intervention. Both those who adhered to the programme and those who disengaged will be explored, identifying similarities and differences in their experiences.

Early processes of change, such as precontemplation, were difficult to identify as participant engagement was self-referred. Therefore participants indicated an intention to change inactive behaviours prior to the intervention. Previous behaviours are explored to identify the behaviour awareness. The contemplation stage essentially begins to identify the motivations for individuals to change health behaviour. Therefore the researcher felt it necessary to explore the motives that prompted change and the moment they decided to exercise. The process in which participants prepared to exercise was examined. It was identified that the preparation stage for many participants was somewhat short and involved the participant acting somewhat instantly to an advertisement or prompting from a friend or relative. Participants were asked to recall the actions they took prior to attending their first physical activity session, expressing their thoughts, emotions and actions.

5.11 Castle and Priory hub - Multi Sports / Circuits

The first case study is an example of a fitness initiative that was essentially facilitated by volunteers who were previously BCiM participants. This case study draws on the interview data of 2 volunteers (PV1; PV2); 2 engaged participant (EP1; EP2) (one of which engaged in aspects of volunteering), 1 disengaged participant (DP8) and field

observations. Prior to the volunteers starting the delivery of this session, the activities were delivered by community coaches and the project's development officers. This initiative was delivered in an area of Dudley in the West Midlands, the sessions were held in a community centre within an estate. In this area participants highlighted there were limited activities, despite free sport provision in the neighbouring estate. The participants within this session frequently used this centre and through an understanding of the primary values of civic engagement, are considered as civically engaged.

Those delivering the activity, volunteered at the centre sessions were delivered, in an informal manner and were heavily involved in their community. Volunteers were previously participants and transitioned from participant to volunteer. Participant to volunteers 1 (PV1) and 2 (PV2), were mother and daughter, whose family had lived in the community for 3 generations and engaged participant 1 (EP1), who lived outside of the target area. Other participants of this group were local residents and friends of the volunteers who frequently met at the community centre. At the point of evaluation the volunteers who resided in the area, were responsible for the running of this community centre. These volunteers and participants belonged to a civically engaged community, whereas EP1 had travelled 3 miles to attend the activity sessions. Communication between the participants and volunteers was conducted through social media (Facebook) and this was further used as a means of recruitment. However this essentially limited potential recruits to those within specific social circles and therefore became an exclusive activity.

5.11.1 Processes of Behaviour Change

Due to the self-referral of participants, exploration into the prior inactive behaviours of participants was examined. It was identified by participants that they had experienced prolonged periods of physical inactivity. Contrary to the framework provided by Prochaska and DiClemente (1984), precontemplators are aware of the effects and impact of their behaviours (this may be as a result to increased health knowledge and consequences to health behaviours). Participants attending this session, had acknowledged their inactivity and other detrimental health behaviours such as poor diet and smoking.

> *"But before this I wasn't doing anything, I did do a couple of Zumba classes, you know when you have those moments when you just think I've got to do something and losing weight and because I was big and after you have kids you have things that just don't go back to normal don't you. And I kept looking down at my body just thinking, I don't know I just got that thing where I had to get up and do it. But it was harder I just couldn't, I just couldn't go to a gym because it's just not me at all. I'm not very good with things like that you know if you think somebody is watching, you just can't..."* (EP2)

Disengaged participant 8 (DP8) had disclosed the moment in which she had decided to attend the session, stating;

> *"I get down and I just eat and it was that day that I was sat there and I was eating crap and thought I just needed to get out the house and do some. I have always known that I need to do exercise but, I don't know, I never have. It is something that I just think isn't for me, I don't enjoy it. Yea I was sat on the sofa and I think I was eating a pack of biscuits and I just felt really, I don't know, fat (laughs). It was then I thought I'd give it a go. I messaged my sister that day and said that I was gonna go with her, I think it was the day before the circuits that I spoke to her about it and then decided to give it a go. She's been on my case about going for ages so that's when I thought why not* (DP8)

Drawing on ecological theories, socioeconomic characteristics have been identified as being a predictor for health behaviours (Cohen, Scribner and Farley, 2000). Lynch, *et al*, (1997) argue that those within the lower socioeconomic quartiles are increasingly likely to adopt and maintain unhealthy behaviours such as inactivity, smoking and poor

diets. Participants had acknowledged unhealthy behaviours prior to engaging in this intervention and in altering such behaviours demonstrated intention to change.

PV2 recalled prior attempts at exercising, stating;

> *"Well I wasn't doing any physical activity or anything mean I was doing nothing, quite literally nothing. I hadn't done anything since I'd had my son, I had tried to do a little bit at home I get up half an hour early to do a little bit, I tried to do a little bit of exercise DVDs and that. And you know kids, my son started getting up that half an hour earlier, (laughs) I mean getting up half an hour earlier than it should, so that just dwindled off".* (PV2)

Motives for initial engagement were reported as increasing fitness, to lose weight and to socially engage with one's community. Motivations differed between those that had opted to volunteer, and it was evident that EP1 had somewhat instrumental motives to transitioning between participants to volunteer. However it could be suggested that due to this volunteer not living in this community, motives for engagement would differ.

> *"I wanted to achieve increasing my confidence, and possibly getting some work …. But things change and new priorities change and sometimes you just have to look after yourself".* (EP1)

However in contrast, PV1 and PV2 had prolonged engagement with volunteering and had participated in community based intervention prior to the BCiM. Furthermore as a family, they had managed the local community centre for a number of years. It appeared their family held a significant position in their community.

> *"They see me as somebody who could get people involved in the community, who can get folk involved. I have never had a harder job in all my life, even my normal job isn't as hard as this. I do more work at the centre than I do in my job… it's what I've got to do for my community*" (PV1)

It was apparent that PV2 and PV2 had structured many of their social relationships around the community centre and facilitating community provision. Both volunteers expressed altruistic and communitarian motives with regards their community, However it could be suggested that further motives relating to civic society paradigms of volunteering are evident. When discussing volunteer PV2 motives, she expresses;

> *"My aim was to get people into the community centre. I think getting new people in so they can hire at the centre and the hall and put different things on at the community centre is something that we really need to do. I did say to (name - activator) when she first came that's why I wanted to put on in the community centre, that we needed to put activity sessions exercise classes get some sport going you know what mean. And that's what my aim is, I love it when we get new people into the community centre."* (PV2)

Although these motives were essentially community centric, the voluntary actions of these volunteers suggest that like EP7, the BCiM project was used instrumentally. Participants PV1 and PV2 had used the BCiM activity sessions to encourage and sustain engagement in the community centre. It could be suggested that the motivations expressed by these participants were to further sustain their own physical activity. Suggesting that participants and those who volunteered continued to attend in a bid to ensure sustainability (as discussed further on).

Preparation to exercise was explored to identify the processes this group undertook prior to attending, it was highlighted by EP2 that she had attended with the intent of going with her sister, and both were inactive and had struggled to maintain a healthy weight. EP2 goes on to say;

> *"And when (name) put it on Facebook and I spent weeks looking at it thinking I could go there, but I never went, and it was (name) that pushed it, saying "please come up, please come up" and was like "if you come all come" and she kept going on and on so I just said "all right I'm going to do it". I just thought even if it's just an hour a week that I'm getting up and doing something, at least I am doing it"*. (EP2)

To examine the action stage of the participants behaviour change, participants were asked to recall the day that they first attended the programme. This was to identify the psychosocial factors that influenced engagement and that self-efficacy and decisional balance was fundamental in attending an initial session.

Anxiety prior to attending the BCiM session was discussed by disengaged participant 8 (DP8) who had relayed her first session, highlighting that;

> *"I was crapping myself, I think it helped having my sister there but I really was shitting myself before we went in and when I walked through the door... it's that not knowing what is going to happen, the only reason I went was because I knew (name) was going to be there with me and that I knew the other girls there. There is no way I would've had the confidence to go if it wasn't for (name) going"* (DP8)

5.11.2 Psychosocial Factors

The psychosocial determinants that impacted engagement were examined, highlighting self-efficacy, social support and decisional balance as influential factors in initial engagement and in sustaining engagement.

Confidence in one's perceived ability to exercise or perform in a sporting context was highlighted by both those that had engaged and disengaged in the activity sessions. Participants had discussed the development of confidence in

> *"I suppose I was nervous, I do have anxiety and I was feeling really anxious about if I could do it and if I would like it…"* (DP8)

> *"You just feel like they're watching don't you, and that they're looking at you and I aye very struck on the idea. So there not being many in there when I went, I felt a bit more confident… more confident about going on my own"* (EP2).

When discussing her disengaged sister, EP2 had suggested that the arrival of a woman from the community had influenced her further attendance, stating;

> *"...it's confidence with her and it is confidence in everything... what I think it is, well at the time what think it was they had been doing it three or four weeks and a couple of new girls had joined, one of them was (name)… We had come that far through, and they was there, and you know she couldn't get down on the floor and do the half sit-up's and that, and (name) could do it.* (EP2).

In this instance, EP2's sister had experienced a situation which affected her self-efficacy resulting in a decision to disengage from the intervention.

Further examples in which self-efficacy was highlighted and explained by EP1 who had expanded upon the introduction of sport with this group by the projects activator. She states;

> *"I think the sport we've done is different in that it has helped you have to build on a skill… it was made into a fun activity rather than this is what you do, it was made into fun and made to be more competitive, which some people strive on and some people stand back like"* (EP1)

However it was additionally highlighted that confidence in delivering physical activity in this milieu was a barrier. In a previous interview (conducted prior to attending the Zumba course), it was identified that during the contemplation / preparation stage of engaging in the BCiM, that this participant had reported low self-efficacy. When discussing potential barriers that this participant had encountered, she stated;

> *"I was stressing myself out about preparing the classes because I hadn't done anything, even though I have got all of the materials and I know how to do it… It like getting routines and that together, it's not just like you can do it from the book you have to like... (pause)... you have to do it all from memory, a whole like hour class, so I wish now that I had started preparing as soon as I had finished and I would have had a bit of peace of mind then."* (EP1)

5.11.3 Social Support and Developing Cohesion

Contextualising the work of Plotnikoff, *et al,* (2001), it is argued that the development of social support influences decisional balance an individual changes behaviour. It was evident that the development of support within this community further enabled participants to maintain physical activity and attendance. This was specifically highlighted by participant EP2 who often attended session with her baby, she often had to rely on the support of family and friends however at the time this became a struggle. EP2 discusses how this was overcome by stating;

> *"My dad has my baby every other Monday now when he's not at work but if he's not got her I can bring her here, so one week he can have here then the next week i bring her here, which is good because there are no other classes where i can do that. The other girls really help out, if she's crying they will go over to her and if i couldn't bring her i wouldn't be able to come"* (EP2)

However social bonds within this community were somewhat fragile. The fragility of community and social bonds was highlighted by both participants and volunteers in this case study, through the discussion of social structures and dynamics. When examining social structures and processes, the exploration of social dynamics was undertaken. Prior social bonds were strengthened between the participants and volunteers as those who attended had previous bonds and common values.

> "*The familiarity was good and knowing who is going to be there is good now because it's ours… but at the start I wouldn't have gone knowing who was going to be there"* (EP2)

This subsequently identified possible barriers to participation in such community based provision. It was highlighted how social dynamics within communities may also exclude. Such exclusion may been seen in social dynamics such as family and friendship groups in these communities.

> *"Because we know each other and like we went to school and our parents know each other, you can get groups that won't go there because so-and-so is going to be there… we've all got history here"* (PV1)

> *"I think for some the location would be a bit of a problem… if it wasn't for (name) taking me down there I don't think I would have gone down there, because of the people that used to use the place… it had a clique*" (EP2)

> *"Yeah I think if you in the clique then your all right. If people turn up they are like why didn't so-and-so turn up, but she wasn't normally in their clique. But that's just the community centre"*. (PV2)

Community in this instance demonstrates the inclusivity of some groups and the somewhat exclusionary practices that can be seen as a result. This is supportive of Bauman's (2001) notion of community in that community can be warm and welcoming on one hand and inhospitable and destructive on the other. The social conflicts that are discussed between PV1 and EP2 demonstrate the inhospitablility of some communities and the barriers they may pose. This was further highlighted in informal

conversation with participants from this group, who discussed that at the community centre they attended, they would not attend or support specific event due to those that would be present. An example of this was following the physical activity sessions, a group from this area would meet for a healthy cookery session. When suggesting their involvement in the BCiM intervention, participants said members of this group would not attend due to people that were there.

If engagement is dependent upon those that attend, this adds an additional variable for consideration when focusing on community as a medium for engagement. Such conflict would essentially impede the development of community groups and are contrary to the bonding capital that is envisaged in Putnam's theory of community and social capital.

Further challenges to participation were identified by PV1 who expressed the boundaries the group had developed with regards to new starters. PV1 discussed a no spectator rule which was developed when she was delivering sessions and the expectations she had for new arrivals.

> *"I mean my friend (name), she's popped her head in the door and then pulled up a chair like she was going to sit and watch. I said," no way, if you wanna come, you will participate we all want to spectate but we can't we're all here for the same thing". She said "oh can't do it", so I told her she either joins in or she has to go. We don't want anybody sitting there watching us whilst we are working out that's not what it's about, I mean were all pretty self-conscious as it is so she took her shoes off and joined us"* (PV1)

This action in itself may have affected the potential engagement of future participants in that, prior knowledge through observation may have inspired participation.

5.11.4 Sustainability

Concerns of activity sustainability was discussed by both volunteers and participants within this group. Recruitment and retention of participants was highlighted as a

potential source for unsustainability. Multiple strategies were discussed and attempted by volunteers and participants alike to increase participation and retention. However due to insufficient participation numbers, this physical activity ceased.

> *"I just don't want it to stop because there aren't enough people there, I don't want to get to the point where we have to stop*" (EP2)

Prior to this, the lack of variation in task was additionally discussed by participants who identified this as a source of unsustainability. In an informal discussion with the volunteers, it was highlighted how the sessions they were delivering were becoming stale and thus affecting the participant adherence. Vocalising their frustration, these volunteers discussed their concerns suggesting they had received training to deliver a specific model of exercises and struggled to 'keep it fresh' and therefore sustain the activity.

> *"I can only say that I have been a bit disappointed when there isn't that many people attending the classes at the centre and that. I mean like, just before Christmas I think it was me and Jules were the only ones there and then the week after it was just me on my own. I mean you don't have to have the commitment but it is nice to have people there and it's not nice to turn up and not to have anyone."* (EP1)

The lack of attendance to the sessions was discussed by PV1 who suggests;

> *"... the only negatives can think of really is when people don't come, that is like a kick in the teeth when all of a sudden you are down to one person and that happens quite a bit*". (PV1)

In total 3 participants from this session had attended courses to enable them to deliver physical activity. The courses that were attended were a circuits / multi sports course (2 participants attended) and Zumba (1 participant attended). The premise of providing varying activities was to ensure variation, which had been highlighted as important by participants. However upon the prospect of delivering a physical activity session, the participant that had attended the Zumba course disengaged from the programme. Due

to a lack of confidence in delivery and a change in circumstance, EP7 was unable to deliver the activity. Stating that;

> *"I couldn't do the Zumba stuff there and that, erm I kind of feel like, i don't know, I think I feel a bit like i have let them down and don't want to think that the group will stop because i couldn't do the Zumba. I think i felt guilty because (name - activator) has become a good friend too and I feel like I have let her down. But you have to do stuff for yourself sometimes and that can sometimes mean you can't volunteer to do things and that… I just couldn't commit and that, not with (name -* participants baby*) and the other half working and stuff.*" (EP1)

This resulted in the delivery of activity being primarily circuits, delivered by volunteers PV1 and PV2, limiting differentiation in activity.

Physical activity outside of the BCiM session was explored and to maintain exercise, participants had sought alternative activities. Such activities varied from attending the gym, to recruiting other community members who could not access sessions. PV2 recalls;

> *"I try and do other stuff, like I have started jogging, I have started going up the wrenner and round the wrenner, I did a couple of times and I have even started go with a couple of girls of the estate. As hard for them because they don't do exercise, and we were talking like and they said they wanted to do something but they couldn't make the Monday class and I was like right, that they needed to try and come on to the Monday class but they couldn't until the next Monday and one of them kept texting me to say that there were going for a jog and if I wanted to come. And I thought right if I'm going to try and get them to come to the class on Monday I've at least got to try and joining with them going for a jog".* (PV2)

5.12 Castle and Priory Running

The second case study examined was a running group in the Castle and Priory hub of Dudley and analysis of interviews provides the basis of this case study. Interviews data was collected from 3 volunteers (V4; V6; V10), 1 participant who later became a volunteer (EP10), 1 disengaged participant (DP10) and field observations. One of the volunteers had worked extensively with the activators at the start of the project to assist

with the implementation of activities. However this reduced due to employment as a result of the volunteering experience gained with the BCiM.

This intervention was delivered in a community park in the centre of Dudley and was initially delivered by a volunteer. This session's volunteer had had prior experience of volunteering and physical activity however had limited experience of delivering physical activity. The initial volunteer had left the programme following employment opportunity and therefore to sustain this activity, 1 participant attended a Couch to 5K running course and a second volunteer joined this group. The participants that attended resided outside of the interventions target group however worked in the local area. The participants and volunteers explored in this case study had accessed this running group though work colleges and travelled varying distances to partake in this activity. The furthest distance travelled was 7.4miles.

Retention of participants for this activity was challenging and many participants disengaged from the project following 1 or 2 activity sessions. It was noted that of the 27 participants that had attended this activity, only 4 resided in the targeted area. Therefore many of these participants resided outside of the intervention area and were not the targeted socio-demographic groups intended.

5.12.1 Processes of Behaviour Change

Drawing on findings from baseline data, those that attended this session had previously been inactive and heard about the session through their places of employment. All participants had displayed a good intention for change by attending this physical activity session, however the majority did not sustain this activity.

Examining the preparation stage, it was highlighted that for many participants was somewhat short and involved the participant acting somewhat instantly to hearing about the session or going with a friend / relative.

> *"And I didn't know whether it was something that I was going to like, and I literally just thought I'd seen an advert, it was literally a two line advert in the Chronicle that said it was a ten-week course starting that week, and to contact someone, I think it was (name - activator) but I can't remember. I just saw it and I thought that looks good, so the next day I went down there (Priory Park), and it actually started a couple of weeks before. It did put me off a little bit but I did think that's okay I will go, so literally went the following day and there were loads of people there*." (EP10)

> *"I suppose walking is the only exercise i do now, i did use to go to the gym and i would like to go back, but erm, at the moment its financial problems and time that are stopping me. So when i heard about it i thought I'd give it a go…"* (DP10)

Participants and volunteers had discussed their motivations for their involvement in the project. Contrasting those in the previous case study, instrumental motives underpinned their involvement. Participants had not identified community engagement as a reason participation. This may be as a result of the participants not residing in the area or the location of the activity being in a park.

> *"I just wanted to do it you see it was just something I wanted to try and do, it was just an activity that I wanted to try and I was thinking more at the time about looking after myself*". (EP10)

When examining motives for attending DP10 highlights;

> *"I suppose, feeling healthy, i think I'm motivated for it to help lose weight, erm giving me more energy and stop being a couch potato. I mean i am busy and i am too busy to even be a couch potato anymore, you know what i mean and it was really just to be healthy".* (DP10)

The motivations identified by the volunteers of this session were considered as instrumental and in some instances episodic, in which volunteers attended the session to gain experience (further explored in Chapter 7).

When analysing preparation to act and action stages, it was identified that both participants and those delivering the sessions were anxious and preparation began earlier that day. Overcoming anxiety was a fundamental process in the action stage of those that were interviewed. Disengaged participant 10 states;

> *We had gotten all our clothes ready for it in the morning and got bottles of water so that was all ready but like i said me and (name) were late, we was nervous and were 10 minutes late cos we got stuck in traffic and that was the only reason we was running late… we nearly didn't join because of being late*" (DP10)

5.12.2 Psychosocial Variables

Drawing on field notes from informal discussion with the group, it identified that the belief in one's ability to run long distances influenced participation and prior exercise. The ability to run long distances influenced the participant's self-efficacy and therefore influenced previous attempts at running. It was thought that to engage in running as an activity one was required to be able to run long distances.

> *I was nervous… I think it was because of didn't know anybody and I didn't know what to expect really. It's hard going to a group, joining a group when you don't know who's going to be there and what you going to be doing and because I hadn't been running before. And not being part of the running group before I did know what to expect. I didn't know whether will be able to do it, how far i would be able to run or of I would enjoy it and that's what many feel a little bit nervous really, I think.* (EP10)

Social support and cohesion was difficult to identify due to the lack of a pre-existing community in this group, although some participants were acquainted through their place of employment. It is considered that due to the attrition rates in this activity, the development of community type relationships were somewhat impeded. Therefore it is suggested that the development of social support from those attending was limited. This often resulted in a somewhat individualised approach to the activity. Thus supporting Borger, Pilgaard, Vanreusel and Scheerder (2016) request for considering the developing individualised nature to current sport and exercise participation. When

examining the action stage for DP10, she shares her thoughts of her first session, stating;

> *"When we were there we are on our own and when someone else comes i felt a bit conscious but i just got on with it and in my head i just thought we are all there for the same thing…*" (DP10)

5.12.3 Retention and Sustainability

This activity session was well attended during the beginning of its implementation, however retention of registered participants and the recruitment of new participants resulted in this session subsequently ceasing.

> *"No one's actually come in the past two weeks. I think this week we will be at week 10 so we're hoping that someone will turn up because this is where you start running towards you 5K. We really did hope that we could get the full 13 weeks so it is a little bit disappointing really that it's got to this, with all the hard work and that was no one there (laughs). Like tonight, I don't know whether to go there, to Priory Park because what's the poin*t" (V10)

When examining the retention rates and the demographic of those who attended it does raise the question of activity suitability. With the majority of participants who had registered, being from more affluent areas of the Black Country and significantly high attrition rates. It is suggested this activity would not be suitable for the targeted population. Furthermore when exploring the insight gathered prior to this intervention, this activity was not identified as a physical activity or sport wanted by the communities in Castle and Priory areas of Dudley.

It was discussed by the session's volunteers that some participants had struggled with the activity and that differentiating was a challenge with a mixed ability group. V6 discussed the impact this had on the retention of a participant, highlighting;

> *"...but then again it is a little bit disheartening that we've only had two of late is that of come regularly and unfortunately one of those ladies has unfortunately dropped out. Because obviously it was increasing each week, and it was getting harder kind of i think it got a little bit too challenging for her.*" (V6)

It was reported by the volunteers that they had found it difficult to differentiate the activity for those that had attended the sessions. It is considered that the inexperience in the volunteers delivering physical activity, specifically to participants who were previously physically inactive, has a detrimental effect on the adherence to the programme. This was not an isolated occurrence and similar had occurred in other activity sessions (see further on) and resulted in participants seeking alternative provision or disengaging from the physical activity process (see Section III, Chapter 5). This inexperience was discussed by EP10 who referred to a situation between two participants, stating;

> *"… the other lady was really enthusiastic but she was always very conscious, I don't know she didn't have a lot of confidence as I think it was because it was quite hard and she found it really hard, couldn't really keep pace and I think she felt a bit singled out and I think that for her made a very different from the other lady. And I think as well a little bit of inexperience from us as volunteers, maybe we could have approached things a little different and sometimes you have to look at these things afterwards and maybe if we'd approached is a little bit different she wouldn't felt that way really"*. (EP10)

5.12.3 Marketing and Advertising

It was reported that there challenges were experienced in recruiting participants for activity session. Strategies used included social media, word of mouth, advertisements in local papers and leaflets. However this provided limited success. Both volunteers and participants had discussed the limited response to advertising and marketing attempts. Both EP10 and V4 had discussed how this was a disheartening experience and at time made them question their role and engagement with the project.

> *"Yes thinking about it I suppose it was a little bit disheartening. I mean obviously i have had experience working with (name - activator) in the office, with the promotion and stuff, helping put some post on Facebook, even sharing them on my own. So i know to some extent the promotion was out there, it's just a case of if it was reaching the right people. Like reaching the target audience, so I don't know how the project can get more people in." (V4)*

"unfortunately I don't feel that the sessions have gone that well this year, it's a shame really we haven't had anybody who's been interested and come and I think that's down to the advertising really... it just doesn't make it easy getting people to the session, nobody knows about it. Obviously is not (name- activator) fault but still you need marketing and need to publicise the sessions otherwise nobody is going to be there." (EP10)

5.12.4 Physical Environment

Due to the location of this activity being in a public area, it was highlighted that this posed some specific risks to those that participated in this physical activity session.

"We have had a little bit of an issue with some of the kids in the park, nothing too big really but they can be a little bit intimidating so we just avoided them really, wherever possible and sometimes if we have run past them we've kind of gone the long way round just to avoid them… The stupid thing about the Priory is that on one side you have a really affluent road with big houses, and the other side you have quite a deprived area and it's that side that the kids hang around so there's always a mix of people milling around the park really" (V4)

"It is quite late the kids to be hanging around in the dark at that time it can be a bit of a concern. Sometimes it can be quite worrying really, especially when you know that it's going to be getting dark soon. And it's the dark nights really that are a bit of a concern, when I was doing it with (name) last year we had to stop as soon as it started getting dark" (EP10)

5.13 Sandwell - Tipton Hub Running

This case study explores a running initiative in the borough of Sandwell. This intervention was based at a community centre and began as a circuit's session (delivered by coaches and project facilitators), however additional sports were delivered. This occurred until the participants gained qualifications to deliver running sessions and then volunteered delivery of the BCiM session. Those interviewed for this case study were 2 volunteers (who were previously participant) (PV3 and PV4), 2 engaged participants (EP6 and EP7) and 1 disengaged participant (DP6). All interviewees belonged to the local area and were physically inactive prior to this intervention. PV4 had moved to this area with her family 3 years prior. All participants and volunteers were engaged in activities at the community centre and attended a

variety of community activities based at the centre with others in their community. Communication between participants and volunteers regarding the sessions was conducted through social media (Facebook), however this was in a number of smaller friendship groups. Drawing on the work of Bonnesen (2018) it is suggested that social media has a significant impact on the process than traditional formal networks. It is argued that the frequency in which an individual interacts with family, friends and community members is significantly high with the use of social media and thus has a positive impact. Attempts to recruit further participants was undertaken at the centre itself and thus only those who were accessed the centre had knowledge of the activities.

As previously discussed the primary objective for this intervention was to develop a model in which participants were able to both sustain activity sessions and maintain their own physical activity, through community volunteering. The vision of policies community volunteer suggests highly motivated individuals and therefore volunteering motives such as personal outcomes, social processes and structures was further explored. Although literature informs us that there are numerous motives for voluntary action and subsequent acts of civic action, motives for voluntary action alongside personal participation was provisionally explored (in interview) as part of the BCiM evaluation.

5.13.1 Processes of Behaviour Change

It was highlighted by the baseline data collected, that this group were inactive prior to engaging with the intervention, however some members were not unfamiliar to community sport and exercise intervention. Like the Castle and Priory circuits group participants were aware of the effects of their prior inactive behaviours. It appeared

that participants PV3; PV4 and EP7 were used to processes of change with regards to physical activity and were essentially relapsers. It was evident that members of this group intermittently attended activity sessions (as discussed further on).

Many of this group discussed previous experiences of school physical education and sport as to a reason they had not partook in continual exercise. Engaged participant EP6 additionally refers to the educational inequalities she had experienced as a further factor to this, stating;

> *"Well I didn't go to school so I don't have a lot of experience of sport or exercise really. I've been to the gym and done that sort of thing never really done sport not going to school you don't really do that."* (EP6)

> *"I never liked doing exercise or anything like that at school, to be honest I mean I was shit at sports and hated PE at school. I had a horrible teacher and she'd make you do it even if you didn't want to. I used to get my mom to write me a note to get out of it"* (PV4)

PV3 had discussed previous attempts at exercising highlighting the challenges she had encountered when attempting predetermined intensity exercise DVD's.

> *"I had tried that Insanity that was another one. I think I lasted two sessions before I gave it up… I gave it up because it was too hard it was killing me. I think I give things up quite easily specially doing videos and DVDs because I need to be pushed and working with other people in a class like this you can push each other".* (PV3)

Motives for attending were primarily around weight loss and getting fitter, however showing support of relatives was additionally highlighted by participants. Examining the actions stage of change EP6 recalls her experiences of her first session;

> *"I remember, saying to (name), do we really have to go?... I remember my belly feeling a bit funny, I think I was nervous but when we got here we had another coffee and filled in the forms that (name- activator) had given us... I mean it is quite funny having not done any exercise before and then joining in and then doing so much, I was done by the end of it."* (EP6)

5.13.2 Psychosocial Variables

When examining self-efficacy with participants of this session, it was highlighted that confidence had influenced the processes in which the participants had engaged in the session. Those that were relapsers had transitioned to exercise adherence quickly and experienced high self-efficacy. However those that had not exercised previously had experienced anxiety and a lack of confidence. Having expressed factors regarding confidence and decisional balance, disengaged participant 6 (DP6) stated;

> *"It was any size, any shape, any age and you could go and i was actually thinking about it. I thought shall i go and then i thought I'm going to look like a right numpty..., i don't know, i mean I'm a big girl aye i and i aye exactly stick thin and i think that's what it is, i think that's a lot of it, i think a lot of it is to do with confidence"* (DP6)

Further decisional balance was discussed by PV3 who recalls;

> *"I think I thought to myself i don't really want to do it, i was thinking don't do it and asking myself do I really want to do it. I think I did this all the way here"* (PV3)

Although some participants had accessed this form of physical activity provision prior to attending the BCiM, some participants had reported a distinct lack of confidence in exercising with people they knew.

> *"...I couldn't just go when there was like loads (of people) in there… you just feel like people you don't know are watching you. And that they are looking at you and I aye very struck on the idea"* (EP6)

Prior to this intervention, the participants accessed the community centre but not as collective therefore this group was not part of a pre-existing community. Peer support and cohesion was something that developed through adherence to the programme. Those that had engaged in the project had done individually or to support to support family members as highlighted by EP6;

> *"I was just there to support my sister, 'cos she wanted to go. She really has struggled, like with her weight and stuff and she is always on a diet so when this came up and I told her about it... I wasn't expecting to be the person that would be going with her but we went"* (EP6)

Through the support of those attending this session and that of the activator, it was suggested social bonds were formed, however this appeared superficial when the delivery of activity was with PV3 and PV4.

5.13.3 Sustainability

Whilst the physical activity sessions were delivered by project facilitators and coaches, regular attendance by local community members was a common occurrence. However participant retention significantly decreased following the appointment of community volunteers. The sustainability of this session was highlighted by both volunteers and participants as a concern. Having had attended prior interventions similar to the BCiM, participants had expressed understanding and concern regarding the longevity of this programme. It was highlighted in discussions with participants, during informal chat, that they had attended previous community interventions and engaged as participants. It appeared from these discussions that they had used these opportunities somewhat instrumentally as a way to access free provision until said provision was exhausted.

> *"I have done this kind of thing before… it was me and some of the girls I know by me that used to go around and find free exercise classes that were put on. They were good and we would go from class to class. When one stopped we would go and find another one like it."* (EP6)

> *"Numbers have been low and we have had some turn up but it would be great if we could get more people to come to our running group".* (PV4)

It appeared that the social dynamics of this group altered when the activities changed as did the retention of its engaged participants. It appeared the change in exercise, exercise intensity and mode of delivery impacted on the session's sustainability. It was suggested that this was due to the change in activity and the lack of experience of those delivering the activity. It appeared that further development of the volunteers training would have benefited during this intervention. It was following this that session

volunteers had expressed concern regarding longevity of the intervention and its sustainability. Although these volunteers had attended the initial running course and the training that is provided, it was emphasised by PV4 that they had had no prior knowledge or experience of running to delivering physical activity. Therefore limiting the volunteer's ability to differentiate or have a contextualised understanding of the activity. PV4 discussed their initial activity sessions and states;

> *"It was a bit of a mess to start off with. We thought it was going to be run, run, run but the ladies that came the first time could not run, run, run, so we had to slow it down for them and try and build them up and then the ladies never came back"* (PV4)

5.13.5 Fragility in Social Bonds

Although the community dynamics of this community centre differed from that of Castle and Priory, the social bonds that were formed as a consequence were fragile. Such social bond fragility challenged the sustainability of this community activity session. This was highlighted in an informal follow up with volunteers and participants at the Sandwell community centre. Following this period of evaluation PV3 had disclosed that she had left the programme due to differences with other members of her community, specifically those who had attended the session. PV3 has subsequently began another volunteering role within her children's school, which has since, led her to gain employment. This event further emphasised the fragility of informal volunteering and social structures which are currently being used as provision to tackle social issues. Although PV3 had left the programme, she had continued her civic action and subsequently gained employment as a result of her volunteering position.

5.14 Walsall - Bentley and Darlaston North - Walking Football

This case study follows a walking football session in the Bentley and Darlaston North hub in the borough of Walsall in the West Midlands. This session was based at a local youth centre and delivered by volunteers who were outsiders to the immediate area. There were two walking football sessions delivered at this venue each week. The first was a walking football group that was established as part of a previous intervention delivered by Walsall Housing Group, the second was facilitated by the BCiM. This case study examines the second session which aimed to increase sport, exercise and physical activity provision for older adults in the community. Participants at the session were a combination of those that were local to the area and those who travelled to access that his activity session and who did not necessarily have any expressed no prior knowledge of the local community. Therefore the demographics of those who attended varied. These participants were from a similar demographic and within the BCiM area. The volunteers were 2 men aged 18 and 22, who had some provisional coaching experience in football. These volunteers delivered the sessions as part of an external volunteering program; the Dame Kelly Holmes Trust. This volunteer development program aimed to increase employability and social capital through various sport and physical activity interventions, as a job centre initiative. Interviews were provided by the 2 volunteers (V7 and V12), 1 re-engaged participant (EP5) and 3 disengaged participants (DP4, DP5 and DP9).

This was not a pre-existing community group and therefore relationships between volunteers and participants were not established prior to this intervention. It was highlighted in informal conversation that prior to this session participants were not acquaintance. There was no communication via social media groups or by any other means. Volunteers or participants held no communication between activity sessions

and attended a weekly session. Attendance to this activity was limited and somewhat sporadic, such inconsistency subsequently affected the sustainability and duration of the sessions.

5.14.1 Processes of Behaviour Change

It was highlighted when examining the processes of change in this group, that there was a divide between those that were active (employed doing a physical job or did regular activity for example owned an allotment), and those who were sedentary. Those that were more active had previously participated in a form of this activity, however those who were more sedentary highlighted when interviewed that they had not participated in any form of football.

It is suggested that at the moment participants joined the programme, they were at the point of action, therefore the processes of change for this groups examined the day they decided to join the activity. The motives of this group varied from wanting to increase fitness, lose weight and to be part of a social group (as discussed further on). Disengaged participant (DP4) recalls;

> *"It's my weight, yea, my weight is my main motivation for doing it. But it's hard to keep it going, like to keep moving… because i hadn't played in ages I found it hard*"(DP4)

Engaged participant (EP5) states;

> "*My aim was quite simple, it was to meet new people and have a good game and learn a new sport… when i first went (name - activator) said he was going to run competitions with other clubs that play and I thought that was great... that's what i wanted*" (EP5)

Recalling the day participants had decided to change their behaviour and begin exercising disengaged participant (DP4)

> *"I did nothing really, nothing, we just decided that because i have got type 2 diabetes, so we just thought we would give it a go..., i think it was just after*

Christmas and i was in the doctors and i saw a flier and i just thought that looks good." (DP4)

The participants that had attended this session had disclosed that they had previously played football, either in teams or as children. It appeared the positive experience of this had motivated them to attend the session. However, drawing on participant action stages and examining first experiences, it was highlighted that their participants were somewhat apprehensive prior to accessing this provision.

> *"I just turned up, it was a bit out of character for me to be a bit nervous, but i just turned up… it was a bit out of character for me to go and do that on my own. I mean, I would have gone with someone else… for me that was a whole new experience. I was really nervous.* (PD5)

> *"I was apprehensive, it wouldn't have taken much for me to say I aye going … i think I was more at ease when I realised they were people like us...everyone there was all the same age as us or around about"*. (PD4)

5.14.2 Psychosocial Variable

When examining social support, it was suggested that those that had attended the sessions were seeking the social support team sport is capable of. As highlighted by Branscombe and Wann (1991), team sport identification is able to replace more traditional family and community based attachments to the larger social structure. Such team sport can have positive implications on self-esteem maintenance and the social ties it can create. It is in this instance that social support is used facilitate the team building process (Rosenfeld and Richman, 1997). However as Rosenfeld and Richman (1997) states *'the group is hardly a team'* (p.133). With regards to the use of social support for the building of a team, it is highlighted by Johnson and Johnson (1994) that to improve productivity, the social skills and quality of the relationships amongst its members, impact the long-term effectiveness of the sports ability to influence health and wellbeing.

5.14.3 Seeking Community and Social Bonds

The notion of community within this case study was discussed by both volunteers and participants. Although the volunteers and a number of participants at the session those participants who travelled to this session, were essentially outsiders to this geographic community, the desire to be part of a temporary community alongside participation in the activity appeared to be an influence in their engagement.

> *"I suppose the reason i went was to meet people, with work and family and everything i got to where I wasn't doing anything for myself. So i thought I'd try this and meet people... I used to play football when i was younger and that would be great to spend time with the lads I grew up with from the estate".* (DP6)

> *(on attending)"... it wasn't so much to get fit or anything so much. Like I used to do football to meet people and to try something new. It was a social thing opposed to an exercise thing".* (DP8)

Additionally DP8 referred to community and a desire to contribute civically, however as an outsider his motives appeared to be somewhat instrumental and less altruistic as those who were from their communities. The social capital sought by the volunteers for this activity pertained to that of bridging capital, as their primarily aim was to gain employment. It is argued this may have altered the social process and essentially the sustainability of the activity.

5.14.4 Sustainability and Barriers

To identify social processes and structures within this group, the demographics of participants and volunteers suggested that this was not a pre-existing community. Therefore the notion this activity could have be sustained based on notions of communitarianism and social capital was challenged. Contextualising Anderson's theory of imagined communities it is evident the concept of using sport and physical activity as a means to create such phenomenon is unrealistic. Furthermore it was

evident that sport, exercise and physical activity in this context was unable to sustain the notion of community and social capital due to engagement of the sessions. It was highlighted by participants that they wanted to be part of a community and sought civic bonds, however due the limited number in attendance this further influenced disengagement in the program. Those participants who had disengaged from the activity sessions had suggested their disengagement was ultimately due to the attendance of the sessions and the unfamiliarity of the group. The challenges to limited numbers attending the session was highlighted by participants and a volunteer.

> *"It's a shame there wasn't more there like, i think it would have been a good thing but it's hard to have a game of football if there is only 3 or 4 of you it just turns into a knock about"* (DP5)

> *"As a coach it becomes difficult if there aren't that many people there"* (V12)

5.15.5 Expectations

It was highlighted by the participants of this case study that their expectations of the session was not met. Prior to attending the sessions, participants had suggested that they had expected the session to be established and the delivery of the sessions to be from football coaches due to the projects affiliation to Wolverhampton Wanderers Football Club.

> *"I was expecting more people to be there… it was a shame really. Especially because I'd heard about it through the community side of the Wolves, I thought there would be more people there"* (DP5)

It was highlighted by this group of participants that the degree of attendance of the session was instrumental in their decision to drop out of the intervention. Those that had engaged in the community walking football session and then disengaged had identified limited numbers as being a primary reason for disengagement. Disengaged

participant (DP4) had gone on to discuss that his expectations of the sessions were not as he thought, expressing his surprise he stated;

> *" I was surprised how poorly it was attended... i really thought they would be queuing up… with everyone from the Wolves getting the email, i mean the Wolves have got thousands of fans who would have got that email so i was really expecting there to be people queuing to up for it"* (DP4)

Session expectations are developed further in Section III of this chapter

5.15.6 Physical Environment

As with areas of socioeconomic disadvantage, there are significant levels of crime and disaffected youth (Andrews, 2009). Such disaffection was discussed by the session volunteers and identified as a barrier to the engagement in the community and essentially to the centre. Volunteer (V5), discusses the issues faced by those that visit the centre with regards to disaffected youths and street crime.

> *"I like that i am doing something with the community... but the centre has a rep [reputation] because of where it is like. You get kids from different postcodes and that, come down, they are always fighting outside here or at school and that".* (V5)

During informal discussion with V5, he suggests that the community centre may pose as a barrier to the local community due to its association with youth violence and crime.

5.15 Wolverhampton, Bilston East Hub - Tai chi and Gentle Exercise

The Bilston East hub provided a Tai Chi and gentle exercise session for older adults. This session was based at a community centre, within an area of high socioeconomic disadvantage. Those that had attended the sessions were older community members who regularly attended the centre and were active volunteers themselves at the community centre. The roles adopted by these participants enabled the community centre to offer child care, exercise and social provision to the local community. Through an understanding of the primary values of civic engagement, it is considered

that those who attended the session were prosocial and civically engaged. However engaging those outside of this group and in the wider community appeared challenging. Those interviewed for this case study were 3 participants (EP8, EP11, EP12) and the BCiM volunteer (V2). The volunteer was an outsider to this community and did not reside in the Bilston area, travelling a distance of 8 miles to deliver these sessions. Participants were older women, who had resided in Bilston their entire lives, using the community centre for over 30 years. To sustain its use, this group of women were among a number of residents engaged in the centres committee. The volunteer that delivered the activity at the community centre had extensive experience in community volunteering and had previously delivering physical activity older adults. This session's volunteer had spent 5 years previously delivering Tai Chi and gentle exercises to the older community, volunteering for the charity Age UK and Easyline gyms across Wolverhampton. This session was delivered for 35 weeks and in total, 11 participants attended. Due to insufficient participant numbers and the volunteer leaving the session, this session ceased.

Existing activity provision at the community centre was aimed at younger members and included Zumba, yoga and slimming world. Previously the centre had access to Easyline gym equipment to engage the older community members, however due charges for use and limited funding (gained by the centres committee volunteers), this provision ceased.

5.15.1 Processes of Behaviour Change

The participants of this case study had identified themselves as active in that all had discussed the activity they undertook in their roles of community volunteers and their everyday lives. The participants interviewed had all previously exercised prior to

attending these session, (although according to the IPAQ data, they did not meet the recommended 150 minutes of moderate activity per week). Having had engaged in community intervention activities similar to the BCiM it was suggested that these participants were considered to be 'relapsers'. Previous physical activity was explored with these participants and it appeared age had impacted their ability to sustain the recommended levels of physical active. Current activity is discussed by EP11 and EP12, who state;

> *"Well, I am 76 so I'm not as active as I used to be. Apart from all the walking I do to open up the centre, I don't really do any other exercise. I walk up here every day and maybe walk to my daughters once a week… the centre is open every day so i walk here to open it up and I close it up a couple of evenings a week"* (EP11)

> *"...I'm 82 you know? And I can't do what I used to although I wish I could (laughs)... I walk to town for me* [my] *shopping and I walk here three times a week for committee stuff, we do friendship groups and I came here for Tai Chi, when it's on"* (EP12)

In informal discussion with the participants (see field observations - Appendix XII), it is suggested that the primary motives for attending the session was to sustain social connections with community members and to support attempts to increase use of the community centre. This was highlighted when discussing previous interventions delivered at the centre EP8 goes on to say;

> *"...it was good when we had people come in and do exercise classes here, I'm going back a bit now but when we first had classes we would get people from all over the estate come down. That's when you know everyone here... We don't get that many using the centre now and really don't get that much funding, me, (*name - EP11*) and (*name - EP12*) volunteer on the committee here so we know how hard it is... we need people to use the centre otherwise we will lose it"*. (EP8)

It is suggested that the participants accessed the BCiM somewhat instrumentally, using the project to sustain the community centre as opposed to increasing physical

activity. The use of this session to engage the community was a primary motive for these participants.

5.15.2 Psychosocial Factors

When exploring self-efficacy with the participants of this case study, it was determined that those participating had previously partook in similar activities. Therefore participants were considered activity relapsers and confidence to partake in the activity was high.

> *"We have had this kind of thing here before, like exercise classes for us oldies… I came to this one because i wanted to do the gentle exercise again. We had a man come in to do yoga with us but he wanted to charge us five pounds each and being a pensioner you just can't afford that a week. So when this came up i thought it would be good exercise... It's good when we can get this sort of thing here because we can get more people coming to the centre too*". (EP8)

It appeared that social support was evident in that those that attended the session were engaged in the community centre and attended to maintain pre-existing social bonds. Furthermore this group had worked collaboratively to advertise the sessions in an attempt at increasing participation of the activity session. It was apparent the social aspect of the centre was a primary focus of those interviewed, as EP12 and EP11 highlight;

> *"I like to have a catch up with the other ladies and gents that come to Tai Chi… getting together with other people from around here is good"* (EP12)

> "*It gets me out and I get to have a good chin wag with the other ladies if they come… I do like to pop in for a chat with the other ladies. I doe* [do not] *get to see them that often and some of them doe [do not] get out that much"* (EP11)

5.15.1 Recruitment and Sustainability

The challenges of sustaining this community intervention appeared to be a common occurrence within this area. The sustainability of this session rested upon the recruitment of community members and the commitment of the volunteer to maintain the sessions.

> *"I think what aye good is that (name- volunteer) won't be stopping with us for long, I know (name - activator) said he'd give us another volunteer in to do it but he said that could take a while which is a shame because we're a little group and yea we're old but we get a lot from these classes"* (EP8)

During the period of data collection with this group the volunteer had left to deliver activity sessions to another BCiM group on the basis of obtaining further qualifications.

5.15.4 Sustaining Provision

The sustainability of this session was limited due to the low attendance and the volunteer moving to deliver an Exercise to Music session to a different activity session. The retention of participants was challenging, this at times was due to the varying age related health problems of this group.

> *"But then there was not many people coming, one or two dropped off…. So they came and they enjoyed it, and I don't think there would have come back if the hadn't of enjoyed it. They are like that, they just wanted to come… I don't know...And we have had different things on, one or two of them would come but when they stopped coming for some reason… its being old, they've had to go and have something done to their leg and then they don't come. They just don't seem to come back, they don't come back again. It is a shame"* (EP8)

As a community centre the participants that had attended the project had additionally discussed their involvement in the centres running. It was highlighted by those interviewed that they were used to applying for funding to ensure community based sport and exercise provision. It was stated by participant (EP8) that they had gained £1000 to pay for yoga classes for the community centres older residents. Further funding had been obtained for an EasyLine gym to be installed and used by the local community residents.

> *"We had a grant, and then we had a man come and do tai chi for us, and that was great because he did tai chi with us, but he said we could do it sitting down. And it was really good and it was really gentle which was great but of course when the grant had run out, we had to start paying and he wanted £5 a time. And that was from each of us, but of course they won't pay it, we won't pay that, that's expensive especially for people that are on a pension*" (EP11)

However once funding had finished, this group of participants would seek their next source of funding. This form of formalised volunteering ensured some community accessible provision and enabled sustainable activity once funding was achieved.

5.16 Summary

Through the inductive and deductive analysis of these case studies, this section examines the processes of change, psychosocial variables and the factors which influenced the activity undertaken and the sustainability of the BCiM cases explored. Through the examination of these case studies it is evident each community setting and session is unique and therefore requires a flexible and diverse model in which to attract and retain participants. As a medium for engagement it is evident that community was, at times, a site for exclusion. Furthermore the social bonds that policy envisages are difficult to negotiate within diverse communities.

The next section examines the disengaged participants and the experiences which influenced this participant group.

Section III - Disengaged Participant

5.17 Intervention Disengagement

To identify programme effectiveness the examination of why participants disengaged in this intervention was essential. The researcher interviewed 12 participants who had disengaged in the programme to examine their experiences and factors which had influenced their subsequent disengagement. Upon analysis, the themes that had emerged from this data reported limited attendance, project expectations and intensity of activity as factors which influenced disengagement.

5.18 Prerequisites to Engaging in the Black Country in Motion

It was apparent that engagement in the BCiM intervention was subject to specific prerequisites prior to active engagement in this intervention. As discussed previously self-efficacy and confidence in one's ability to perform the task influenced engagement and adherence. However there were a number of factors which further influenced engagement. These included privacy when exercising, professional support and not being greeted by a gym body upon arrival. Female participants had highlighted the requirement for privacy when exercising, suggesting that if they were to be observed then they would not partake.

A fundamental finding from previous insight research identified that many of the target population for this intervention wanted physical activity or sport delivered by *'someone like me*' (see Chapter 1; Section 1.6.1). However this appeared to be a dichotomous opinion amongst those within this research. Engaged and disengaged participants had suggested both a barrier to previous engagement in physical activity and a prerequisite to attending the BCiM, was ideals of the sporting body. Many had stated that they did not want to be greeted by a 'gym body' or to be exercising with those that had a 'gym body'.

Perceptions of the sporting and physical activity environment was initially a barrier for many of the participants that were interviewed. It appeared many participants expected to be greeted or surrounded by specific body types.

> *"We had this thing where it was just going to be filled with muscle men and that we wouldn't really fit in...When i thought it was gonna be all muscle men. i mean i had this thing like because I'm not a little bloke and cause of that there would be other blokes there and they would think, well they would expect me to do whatever, but i thought well i aye gonna be able to do anything like that because i wasn't fit you know what i mean. And i aye fit enough to do the football and i war [wasn't]."* (DP4)

> *"I wasn't surrounded by skinny women wearing Lycra which would have been much worse nightmare and I think in a way I was expecting that..."* (EP3)

However contradicting the '*someone like me*' somewhat, these participants had stated that they expected 'professional support' or an individual who was knowledgeable about the activity or sport they delivered. This was highlighted by the disengagement of participants from the Tipton Green circuit sessions. It was highlighted in informal discussion that once the activator (who was then delivering the sessions), had left, they would be disengaging the sessions (see Field Observations - Appendix XI). When asked why, these participants had stated that they wanted someone with the ability to deliver a variety of activities and had wider knowledge.

It became apparent that participants had wanted to be greeted by a body type that was not stereotypically that of a gym body, however participants had specified that they required a sports professional to deliver activity. It is evident that this was often influenced by the participant's self perception of body image. Body image or how we perceive ourselves is a mental representation one creates. Our perceived imperfections do not only affect how we feel but influence our behaviour and what we do (McCabe, Ricciardelli, Waqa, Goundar and Fotu, 2009). Appearance centric society can have a negative impact upon how we perceive the reality of their own bodies (Davison, 2012) and this can further impact upon how we engage in sport, exercise and physical activity (Perackova, Chovancova, Kukurova and Plevkova, 2018; Guszkowska, 2015). The relationship between body image and physical activity and body image as those who are inactive have greater dissatisfaction with their bodies.

This paradox demonstrated that the deployment of this type of community volunteer, within this demographic has multifaceted issues with regards engaging the inactive. It is apparent that body image is an important factor for those who are inactive, however when developing the premise of '*someone like me'* participants wanted to be greeted with someone relatable. However when faced with a volunteer that is from within their own communities or similar and met this prerequisite, a lack of faith in the volunteers ability was evident.

5.18 **Expectations**

Although many of those that had attended the BCiM had not previously engaged in this form of community intervention, participants appeared to have set expectations. The contrast with some participant's original expectations of the programme was explored and this identified that the size and implementation of the programme differed. However with the affiliation to BCiM programme had with the Wolves Community Trust, participants had expected activity sessions such as walking football would be more established than they were. Walking football activity sessions provided through the BCiM were popular however;

> *"I thought there would be more people than that. Because of the adverts you have seen about walking football, you know through Barclays and that, i was expecting more people to be there, but yea, it was a shame really. Especially because I'd heard about it through the community side of wolves, you'd think there would be more people there*". (DP5)

> *"I was expecting more people to be there, like the last time there was only 3 of us there which was a shame and apparently the lads did everything to advertise it. I don't know why there weren't many there really…. having said that I thought Wolves have got thousands of supporters who would have received that email, I thought when I got there I would have been queuing up*" (DP2)

DP2 goes on to say;

> *"I thought when I got there I would have been queuing up. And I could believe it when I got there I really couldn't. I said to my wife I bet some of my old Bradley*

friends who I used to play football with would be there if they have seen this, as they are the same and I was just surprised how poorly it was attended but there has to be a reason." (DP2)

The informality of the programme was additionally identified as a reason for disengagement. This somewhat contradicts the ideals of 'someone like me' identified in insight gathered prior to BCiM implementation. It was highlighted that such informality at times, demonstrated a persona of disorganisation.

"I was just like i can't be bothered with it. And that was how i felt, i just thought it was just a shambles. And that's why i stopped going. Erm and i think i just wanted something more structured". (DP6)

"All I saw was the email from Wolves, like I said, no criticism to the girl who'd answered the phone when I rang to enquire about it but she had no idea about it at all. I said 'honestly' and she said 'yeah'... she knew nothing at all". (DP2)

5.17 Self Selected Intensity

The perceived exertion experienced during physical activity can determine that adoption and maintenance of regular exercise and / or sport participation. Research undertaken by Ekkekakis and colleagues, exploring the enjoyment of exercise and intensity in physical activity (Ekkekakis and Petruzzello, 2000, 2002; Ekkekakis and Lind, 2006; Ekkekakis, Hall and Petruzzello, 2004; Focht, 2007). Ekkekakis and Lind (2006) argues that the causal links to the adoption and maintenance of exercise are as follows; a) the intensity of the activity (whether this intensity is imposed or self-selected; b) affective pleasure or displeasure responses and perceived exertion and c) adherence. It was identified by those participants who had dropped out of the programme that the degree of intensity had influenced their engagement with the programme.

"It was hard work. And i suppose I wanted to know if i could do it cos i aye done anything like that before and i could do it but i was knackered after it and it hurt, some of it i couldn't do like the sit ups and stuff cos it hurt. I aye never done

> *anything like that before… I don't know i found the first one i done really hard and i don't know i thought the running would be easier… I day [did not] like it"* (DP7)

> *I felt relieved a bit, like I was happy that I didn't have to do it again… it was hard... I don't know, that's a hard one because I wanted to do it to lose the weight but then because I found it really hard and I haven't carried on.* (DP8)

DP8 goes on to state;

> *"I would say I found the actual session challenging, it was a big thing me trying something like that and it wasn't something that I would have chosen to do on my own. There is no way I would've gone there on my own. But yea the exercises were challenging… so I don't think anything exercise wise I'm going to enjoy. As soon as I start sweating I hate it and because of my weight I have a lot of other health problems like".* (DP8)

In some instances participants had discussed the unpleasant feeling of exercise that had been imposed. Inactive individuals are inclined to find imposed, high intensity activity unpleasant and therefore impact upon their adherence to the activity (Ekkekakis and Lind, 2006).

> *"I just don't think me and exercise is a good thing (laughs). I just don't know how people can do it and like feeling like that the day after, I mean my sister loves it and if she aye hurting the next day she thinks she hasn't had a good class… I just don't get it… I had never done a sit up in my life and to be made to do them for a minute really hurt."* (DP10).

Despite the recognition of preferred intensity in the adoption of aerobic exercise, models of intensity preferences in this delivery was not at times applied. It appeared from the analysis of interviews with disengaged participants, that physical activity intensity was essentially a barrier to adherence and engagement in the programme. As a result to the intensity of activity some of those interviewed had sought alternative exercise provision. 3 of the disengaged participants interviewed had suggested that they had attended alternative exercise or sport as a result of attending the BCiM session. Disengaged participant 4 had highlighted that following his first session at a walking football session, he had felt the intensity of the activity challenging stating;

> *"I've got to be honest i think i found the walking football probably harder than the gym...it was like harder, like physically harder and there wasn't that many there it was less than 5 a side so it was just a little kick about really. So yea it was just the physical side of it i found hard, had hadn't been doing any exercise or anything so we was really unfit"* (DP4)

Many of the disengaged participants had initially engaged in the BCiM and then proceeded to find alternative exercise provision. DP3 was a female who had attended a walking football session, to which the activity was challenging and she had sought an alternative, she discusses this by stating;

> *"Well the football thing is a man's sport isn't it and when i was there i was worried about the ball and doing it because i hadn't done it before but i was definitely a lot more comfortable in what i was doing when i went to the gym. I don't know why but i just was*." (DP3)

> *"It has really followed on from me trying the walking football really. For me it was like, I've tried that do why not go and try something different"* (DP5)

Exercise intensity was something that significantly impacted up on the experience of people who had engaged in the programme. This supported the work of Dishman, Sallis and Orenstein (1985) in that the impact of exercise intensity in some instances resulted in participants to relapse into previous inactive behaviours.

> *"I mean when you go somewhere like that with the music, like high intensity music you expect to be like hyper with it but to come out of there and to be feeling low then there is something that aye right.*" (DP6)

5.21 Summary

It was identified by those who had disengaged from programme had done so following a process of decisional balance which was influenced by the attendance of sessions, the ability of the community volunteer to deliver suitable exercise and their expectations of the programme.

The following chapter (Chapter 6) will explore the process evaluation of the project, exploring the recruitment, reach, implementation, efficacy and delivery of the BCiM.

Chapter 6 - Process Evaluation

6.1 Overview and Introduction

The results in the previous chapter (Chapter 5) provides us with an outcome evaluation of the BCiM. Exploring the outcome measures of the IPAQ, processes of behaviour change and the experiences of the community volunteer and the effectiveness of this intervention. Chapter 6 explores the process evaluation of this intervention, focusing on the BCiM's success criteria, recruitment, reach and implementation, efficacy, delivery and maintenance. Thus foci of this chapter is to identify the projects efficacy, effectiveness and impact. The results of each of these elements will be presented using a range of data collected, including an analysis of the evaluation and research process.

6.2 Theoretical Underpinning and Evidence

The Black Country in Motion differed from conventional physical activity intervention as the physical activity delivered was provided using trained community volunteers. This approach placed greater emphasis upon the sustainability and social development, in addition to changes in behaviour. The theoretical underpinning of this programme is based on identifying processes of behaviour change, with the intention that community provision can encourage such change and thus ensure physical activity adherence and long-term sustainability. This framework was used as opposed to developing participant knowledge acquisition or change in attitudes, which often result in short term provision. However the design of the project was not primarily guided by a specific model or behaviour change theory, but to test the ability of community to encourage and motivate participation. It is now acknowledged that it would have been useful to have adopted a behaviour change model, such as health belief model (Rosenstock, 1974), a stages of change model (Prochaska, 1992) or the

theory of planned behaviour (Ajzen, 1985). This may have improved the interventions effectiveness and effected exercise attrition (Barker and Swift, 2009).

Community based intervention in areas of high socioeconomic inequality are based on the premise that the community environment is essential in the aetiology of physical inactivity. Tentative evidence suggests that community intervention can influence behaviour and those who reside in these communities are increasingly inclined to take up exercise if delivered by '*someone like me'* (Black Country BeActive, 2013; Sport England, 2016). Overall these studies suggest the delivery of such provision is an important element in tackling sedentary behaviour and motivating people to exercise. Furthermore through the development of community volunteers, social capital acquisition can be increased thus impacting upon the socioeconomics and potential employability of those who volunteer.

Programmes designed to increase physical activity in areas of socioeconomic disadvantage are traditionally challenged when it comes to sustainable provision (Carey and Crammond, 2015; Johnston, *et al*, 2014). However it has been highlighted the challenges associated to accurately measuring impact and effectiveness (Martin, 2015; Craike, et al, 2018; Roux, 2008). Following a review of systematic reviews of physical activity intervention in areas of high deprivation, Craike*, et al*, (2018) highlight that interventions can be successful however evidence of this can be weak or inconclusive. Craike, *et al,* (2018) go on to suggest that the adoption of strategies to increase recruitment and reduce attrition could result in more success. Essentially highlighting that to allow determination of success, characteristics of effective intervention should be included. Supporting this argument further, Eaglehouse, Kramer, Rockette-Wagner, Arena and Kriska (2015) suggest the under-reporting and

inconsistencies in physical activity methods requires attention. Without this, an in-depth understanding of the impact of physical activity intervention and the processes in which behaviour change happens is limited.

Physical activity interventions that have been delivered as part of the *Get Healthy, Get Active* programme, have identified the efficacy challenges when faced with designing and delivering real world, community intervention. Thus emphasising the importance of identifying the processes in which an intervention is effective in its delivery, uptake and promoting adherence.

6.3 Processes of Evaluation

This external evaluation was undertaken by the University of Wolverhampton and findings were part of the nation Get Healthy, Get Active initiative, co-ordinated by Sport England. The aim of the evaluation was to examine the extent to which community engagement through this intervention is effective in increasing physical activity and sports participation. Further assessing whether a community led project, in which community volunteers are trained and facilitate activity is effective in increasing participation.

As discussed in Chapters 3 and 4 previously, a framework to identify the efficacy and effectiveness of the Black Country in Motion was used in the form of a process evaluation. An adaptation of Linnan and Steckler (2002) was applied. The premise of this was to identify impact, efficacy and effectiveness through examining the interventions processes. In this section the study will explore the following;

- methods of recruitment and how successful they were in recruiting participants and volunteers
- the project reach and the degree to which the intended, targeted audience participated in the intervention
- Dose delivered and the amount of intervention provided by the BCiM in the hubs

- The extent of dose received and the extent the participants were actively engaged in the programme
- The extent to which the intervention was delivered as planned and the efficacy of the project. Identifying the extent to which the intervention would impact under optimal conditions
- Perspectives of participants and volunteers in order to support future interventions

6.3.1 Success Criteria - Participants

As with any public health or community intervention, KPI's and outcomes are essential when measuring the success and effectiveness of intervention. The critical success factors that were outlined by the BCiM at the outset of the programme were; that 3000 individuals would access the initiative over a 3 year period. Of that figure 70% (2,100 participants) to be retained at 3 months, 60% (1,800 participants) and 50% (1,500 participants) at 12 months. All of which would increase their physical activity levels from 0x30/1x30 minutes per week. An additional success criteria for this programme was the recruitment of volunteers to deliver and facilitate the activity sessions. The primary target for volunteers was 80 however at the point of final analysis 140 volunteers received sport and exercise training as a result of the BCiM programme. Fundamental points in the 3 years of programme delivery were outlined in Table 6.1, which identifies the primary outcomes and success criteria for the BCiM programme.

Table 6.1 Success Criteria over 3 Years

Outcome and Success Criteria
• Increased percentage of people achieving 1x30 minutes of sport per week • Increased percentage of people achieving 1x30 minutes of physical activity and exercise per week • Decreased percentage of people achieving 0x30 minutes of physical activity per week • Increased economic development activity through employment opportunities for volunteers • Increased social capital and strengthened community cohesion • 3000 people active in at least 1x30 of sport per week • 8 sport health hubs developed • 3,000 people engaged in the programme out of the potential 12,135 people in 21 locations • 70% retained after 3 months, 60% after 6 months and 50% after 12 months • 80 community members trained to deliver at least 4000 of activity hours per year • 130 clubs/organisations trained and mentored to support inactive people into Sport England

As highlighted above, the initial criteria for success was 3000 participants, however over the 3 year period of delivery, 1205 participants in total registered with the BCiM programme (of which 728 participants met the research criteria). As the project met only 40.1% of its initial target, it warrants examination of issues related to recruiting participants from this demographic to partake in exercise and physical activity. The following will examine the processes which were effective in facilitating activity change and those which require further examination.

6.4 Recruitment

The recruitment of participants for the BCiM was essentially the responsibility of the project activators and facilitation team, which involved in some instances the programme volunteers. Recruitment strategies were initially developed by the Black Country BeActive group and the Wolves Community Trust.

6.4.1 How Participants were recruited

The aim was to deliver activity and sports sessions in community and leisure facilities, alongside developing existing provision, within the targeted areas of the BCiM during the period of October 2013 and October 2016. Activity and sports sessions were delivered throughout the week and times varied; dependent on the activity, volunteers and facilities, duration of the sessions additionally varied. Following 3 years of delivery, a total 1205 participants were recruited and registered within the BCiM programme. The recruitment strategy for the participants of the BCiM was primarily through community association, exercise referral schemes (such as Dudley Health Trainers), community groups, and social media, and word of mouth, posters at community venues, leisure facilities and sports clubs. The emphasis of this approach however was focused upon those who were engaged in their communities and attended these facilities.

6.4.2 Examining Recruitment

To examine the optimal recruitment pathways for this target group, exploration of participant recruitment was undertaken. Data collected at baseline identified the pathways participants had heard about the BCiM, up on contact with project facilitators and/or volunteers, participants were requested to specify where informed of the intervention. From the 728 participants registered in the BCiM programme, 415 provided information on how they became informed of the initiative. Table 6.2 identifies the methods of recruitment of the BCiM participants, placing emphasis on that word of mouth, pre-existing community organisations and social media were successful methods in recruitment in this instance. However this analysis is subject to 42.9% (*n=313*) of the participants not specifying the methods of recruitment.

Table 6.2 Methods of Recruitment for BCiM Participants

Methods of Recruitment	
Social Media	12.4% (*n=90)*
Referral from external agency	0.3% *(n= 2)*
Leaflet or poster	6.7% *(n= 49)*
Internet	0.9% *(n=7)*
Friends/Family/Word of mouth	18.9% *(n=138)*
Email	1.2% *(n=9)*
Delivery organisation	13.3% *(n= 96)*
BCiM Staff	1.8% *(n= 13)*
Other	1.5% *(n= 11)*
Preferred not to state	42.9% *(n = 313)*

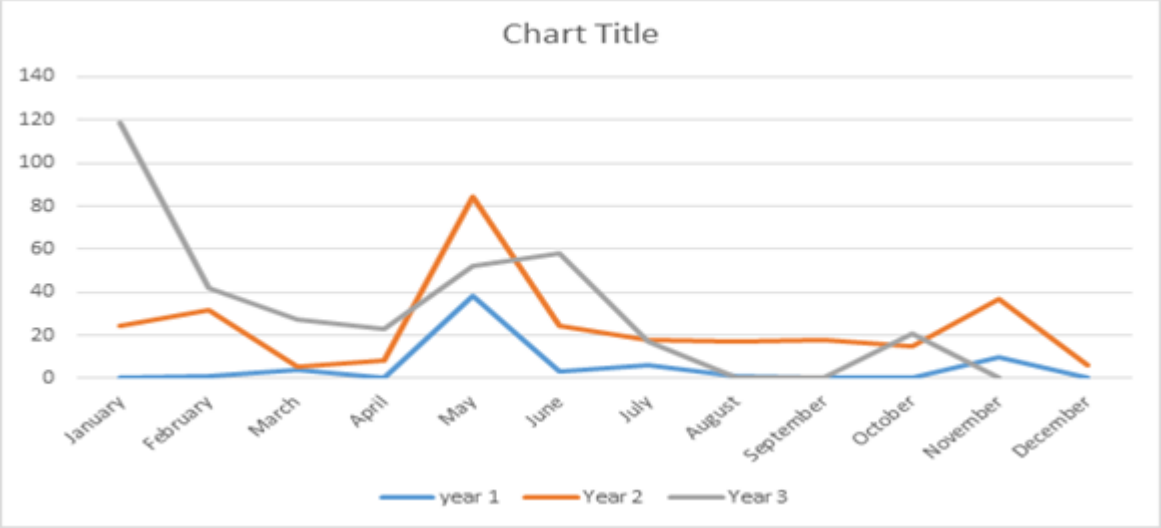
Table 6.2 highlights that word of mouth, social media and the organisation in which the activity is delivered are primary methods in recruiting participants, however the proportion in which data is missing somewhat impedes this analysis. It does however highlight the challenges to gathering information and completing paperwork within such demographic groups.

6.4.3 Recruitment - Periods of Engagement

Recruitment for the BCiM was undertaken throughout the 3 years of funding. The project began in October 2013 and ceased recruitment November 2016. The recruitment strategy was a constant during this period. To identify trends in recruitment and the best time to engage participants, an analysis of recruitment numbers over the course of this 3 year project was explored. Figure 6.1 highlights the trends in recruitment and engagement throughout the 3 year programme. Figure 6.2 provides a breakdown of the recruitment participants for each of the 3 years of delivery.

Figure 6.1 Overall Recruitment and Engagement Trends

Figure 6.2 Recruitment Breakdown over 3



Data highlights that the optimal period for recruitment is prior and during the months of January, in which many sport, exercise and leisure pursuits begin to trend. Recruitment data additionally identified that between the months of April and June participant recruitment numbers increased.

6.4.4 Social Media

An element to the recruitment strategy was social media. Health interventions have used social media as a strategy to promote initiatives due to their capacity to disseminate programmes virally (Cobb, Graham, Byron, Niaura, Abrams, 2011). Cobb, Jacobs, Wileyto, Valente and Graham, 2016) highlight the ability of social media

in this instance to facilitate social support and modify norms. Studies by Bull, Levinem, Black, Schmiege and Santelli (2012) and Cavallo, Tate, Ries, Brown and DeVellis (2012), highlight the ability of social media (specifically Facebook) to have unprecedented access to an individual's social network. Thus enabling the support of an optimal network intervention model where reach of an intervention can be generated and social support given to assist change.

The social media campaign began October 2014 using media sites Facebook and Twitter through the Active Black Country pages. Following the organisation and allocation of provision, some groups then created their own social media once established. This often included messaging boards in which information about sessions were discussed and shared. The researcher observed that these messaging groups were often inclusive to its members and therefore excluded those not in these groups. Thus limiting information distribution, social inclusion and the subsequent recruitment of potential participants. It was further observed the limitations of recruitment reach when participants and volunteers who shared information regarding the project. This information was limited to those within specific social groups and not the wider community or those who did not have access to this form of media. Furthermore the use of the Active Black Country page would suggest that those who would see this information would be either at the contemplation/preparation stages of change or active, because in order to land on the page, they needed to be looking for this type of work, or show some interest.

6.4.5 Recruitment and Pre-Engagement Sub-Study

As previously highlighted in Chapter 5, initial targets for this intervention was 3000 participants over a period of 3 years however during the delivery period this number

appeared to be somewhat of a challenge. Therefore the researcher examined the recruitment process further and undertook a sub-study to identify brand recognition in the targeted areas of the BCiM and the marketing's ability to motivate the targeted participants. The premise for exploring the marketing's ability to motivate potential participants was based on the pre-engagement, precontemplation and contemplation stages of the transtheoretical model for behaviour change. Data collection was undertaken in 3 of the 4 areas of the Black Country, Wolverhampton East (Bilson area), Dudley and Sandwell over a 2 week period. The location of this data collection was determined by the target group and the likelihood of them frequenting these areas. In total 1610 people were approached, shown marketing material and asked the following questions;

- Have you seen this before?
- Would it inspire you to exercise?

The researcher made additional notes when participants provided additional perspectives upon the marketing. Table 6.2 provides the outcome of this sub-study.

Table 6.3 Pre-recruitment sub-study identifying brand recognition and its ability to inspire exercise

	Have you seen the marketing?		Would it inspire you to exercise?	
	Yes	No	Yes	No
Wolverhampton East (Bilston East hub) – (n= 776)	2.8% 22	97.2% 754	20% 158	80% 618

Sandwell (Tipton Green hub) - (n= 318)	2.5% 8	97.5% 310	31% 98	69% 220
Dudley (Castle and Priory hub)- 9n =516)	3.4% *n=18*	96.6% *n=498*	35% *n=180*	65% *n=335*

The findings of this sub study identified that brand awareness for this intervention was limited with 3% (*n=48*) of the population having seen this branding across 3 of the 4 targeted boroughs. When examining the BCiM's marketing ability to inspire the targeted audience to exercise 35% (*n=436*) it did inspire them to exercise and 65% (*n=1,174*) said it did not.

The researcher made field notes during this process, documenting any additional information provided by those who had been approached. Drawing a thematic analysis, the following themes were identified;

- Adults thought it was targeting children's physical activity
- The participants had no relation to the images provided
- The material was too generic
- Exercise was not something that interested the participant
- Participants were too busy to partake in physical activity

Following this report the project steering group opted to employ an external marketing company to develop alternative marketing and recruitment material. However due to the time constraints of the research process, the researcher was unable to complete a follow up sub-study to identify its effectiveness.

Despite revising the marketing strategy and using a number of recruitment strategies, the BCiM was unable to recruit a sufficient number of participants. Unpaid publication

methods such as using social media and the organisations used for the delivery, proved to be the most effective recruitment strategy. Referral via health initiatives and leaflet/poster recruitment was less effective than initially thought. There were a number of factors that may account for this. The use of general practices and weight management organisations was limited. The universal recruitment using leaflets and posters in the areas in which activities were delivered appeared to be less effective.

This may have been due to where this marketing was placed, for example in community centres where those who are somewhat disengaged in community activities will not frequent. The poor recruitment rates for this specific demographic group require further exploration. This may reflect the approaches to marketing, aiming to encourage and motivate physical activity and sport, the activity themselves or the individual's attitude towards physical activity. Further research is proposed later in this chapter.

6.5 Reach

Conceptualising Glasgow*, et al*, (1999), reach is defined as a measure of participation characterised by the number and proportion of those representative of the population targeted. To identify the reach of the BCiM programme, the researcher took a dualistic approach to it exploration. Using data collected at baseline and mapping software (www.easymapmaker.com), the researcher was able to map participant residence and

*(The full report which was delivered to stakeholders and funding bodies can been found in Appendix X)

that of the location of BCiM activity sessions. The basis of this was to identify the proportion of those accessing the provision in the hub, and the percentage to which the intervention was effective to this number. Secondly, using the demographic characteristics provided by participants the researcher compared this to the market segmentation which underpinned the intervention approach and delivery strategy. Knowledge of the sub-groups participating in the intervention was an essential element to determine reach, therefore establishing if the participants in the intervention reflected the target population (Linnan and Steckler, 2002). 73.5% (*n=789*), who met the inclusion criteria with the BCiM identified themselves as being inactive, however 36.1% (*n=358*) of these participants resided in the areas targeted in the intervention

6.5.1 Reach per Black Country in Motion Hub

The BCiM programme attracted a broad range of participants, from across socio-economic groups, thus reflecting the diversity of the Black Country area in its economic spectrum of extreme deprivation to high affluence. At project completion a total of 1205 participants had registered with the BCiM programme. The data collection process was completed 4 months prior to this date, due to time restrictions, therefore the final total of participants, meeting the inclusion criteria was 789.

The following section of this thesis explores the analysis of the BCiM activity locations and reach of participants using participant residence (postcodes). Using a mapping database the results are as follows;

6.5.1.1 Reach - Castle and Priory

Within the borough of Dudley, in the Castle and Priory hub, the BCiM facilitated 10 physical activity sessions. The following maps highlight the locations of the activity and the residence of participants. Highlighting how far participants travelled to access this

provision and to the extent this intervention has successfully reached its target population. Figure 6.3 identifies the locations in which physical activity sessions were delivered in the hub of Castle and Priory. Figure 6.4 highlights the locations of participant's residence, the reach the project had and the distances participants travelled. Figure 6.5 identifies the participant reach in the target area in the Castle and Priory hub.

Figure 6.3 Castle and Priory Physical Activity Session Locations

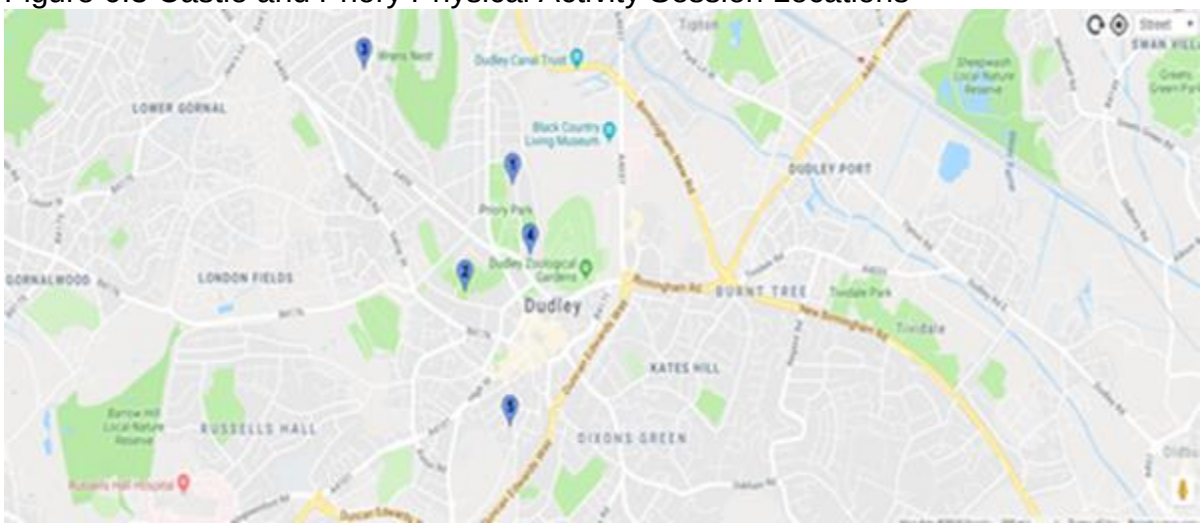


Figure 6.4 Castle and Priory Participant Reach

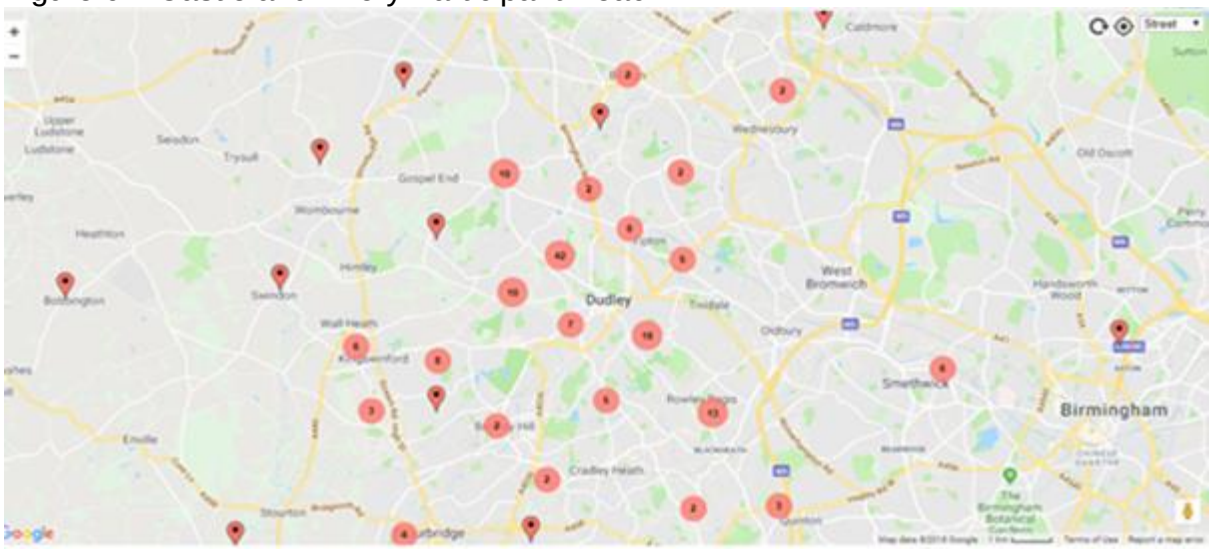


Figure 6.4 demonstrates the reach of the BCiM programme and highlights the participants that had registered and participated in physical activities in the Castle and Priory hub. Figure 6.4 highlights the number of participants in each area and that participants travelled from varying parts of the Black Country to access the physical activities provided. Data suggests the furthest distance a participant travelled to access this provision was 12.4 miles

Figure 6.5 Castle and Priory Participant Reach in Target Area

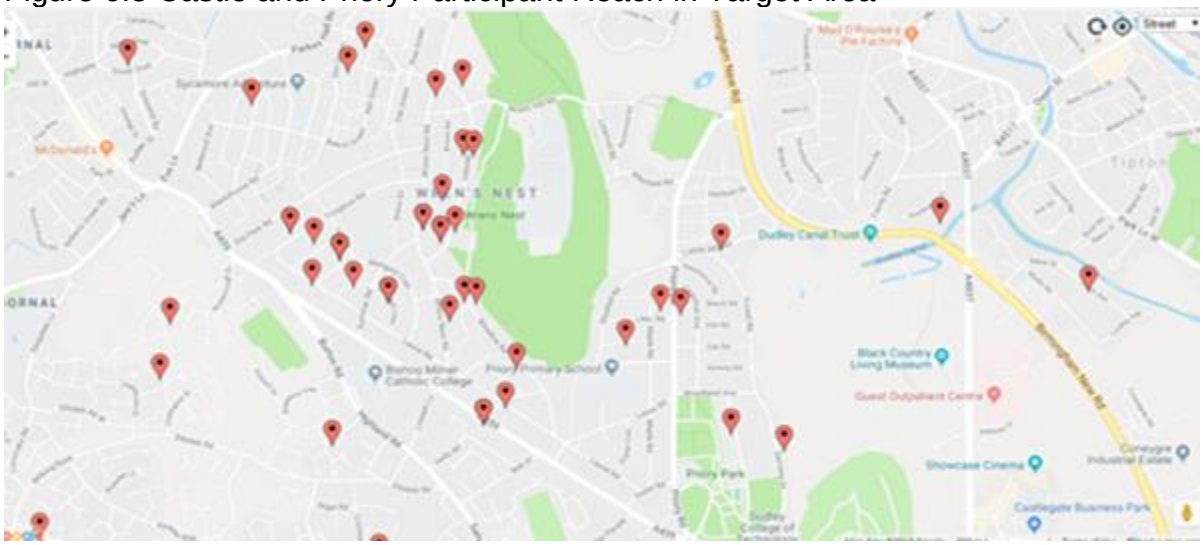


Figure 6.5 highlights the number of participant residence in the targeted area. Data highlighted that 14.9% (*n=29*) of the BCiM participants who attended activities in this project, resided in the targeted Castle and Priory area. These participants were the target population of this intervention. Furthermore emphasising that 85.1% (*n=165*) of these participants were from outside of this area, thus the demographics and market segmentation profiles of these participants differ.

6.5.1.2 Netherton and Woodside

The hub of Netherton and Woodside facilitated the provision of 5 physical activity sessions through 3 community venues. The following maps highlight the physical activity session locations and the location of participant residence who had accessed

this provision. Figure 6.6 identifies the 3 locations of the physical activity sessions. Figure 6.7 highlights the residence of the participants who accessed the BCiM physical activity provision in this hub. It should be noted that from the 50 participants who registered, specific contact and postcode information was missing from the data. Figure 6.8 identifies the participant reach in the target area.

Figure 6.6 Netherton and Woodside Physical Activity Location

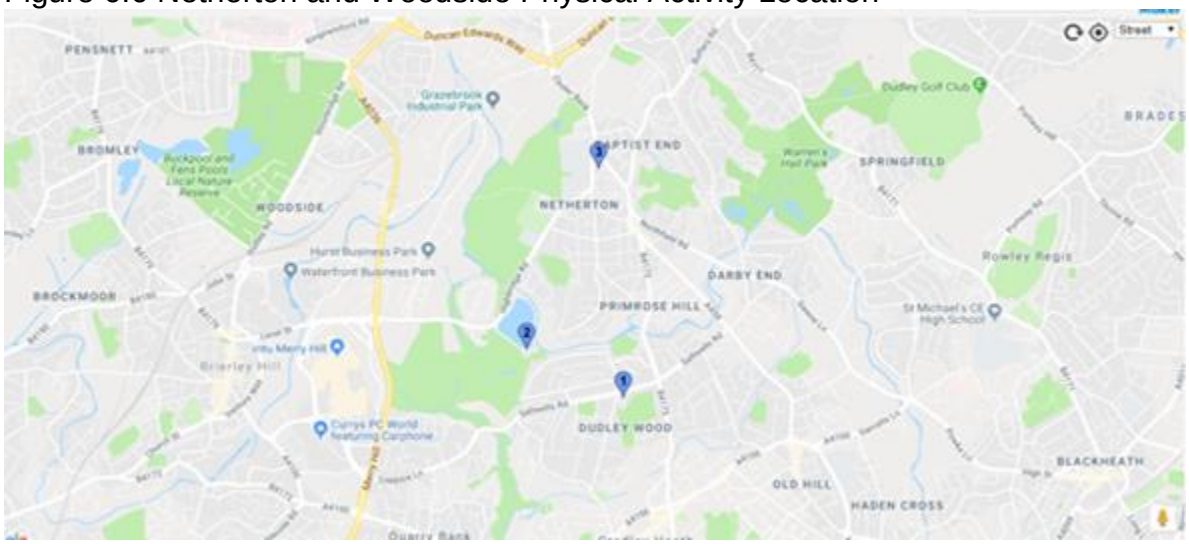


Figure 6.7 Netherton and Woodside Participant Reach

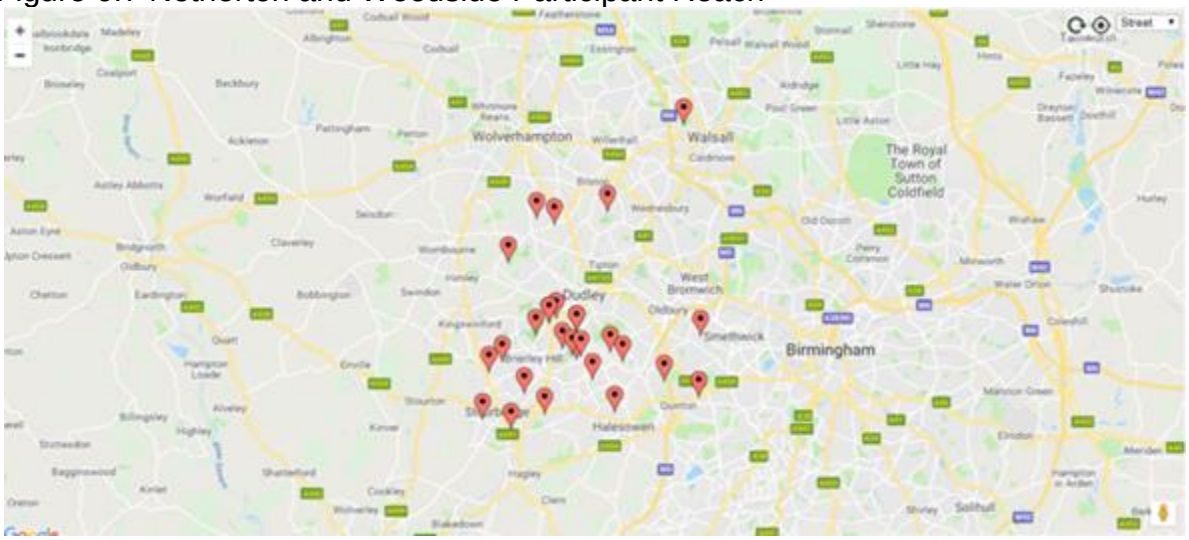


Figure 6.7 identifies the participant reach for the physical activity sessions delivered in the hub of Netherton and Woodside. From the participants data provided, those who attended these BCiM activities in this hub, resided across the Black Country and

Birmingham areas. It was highlighted that the furthest point a participant travelled to access this provision was 10.3miles from the outskirts of Walsall borough to Netherton.

Figure 6.8 Netherton and Woodside Participant Reach in Target Area

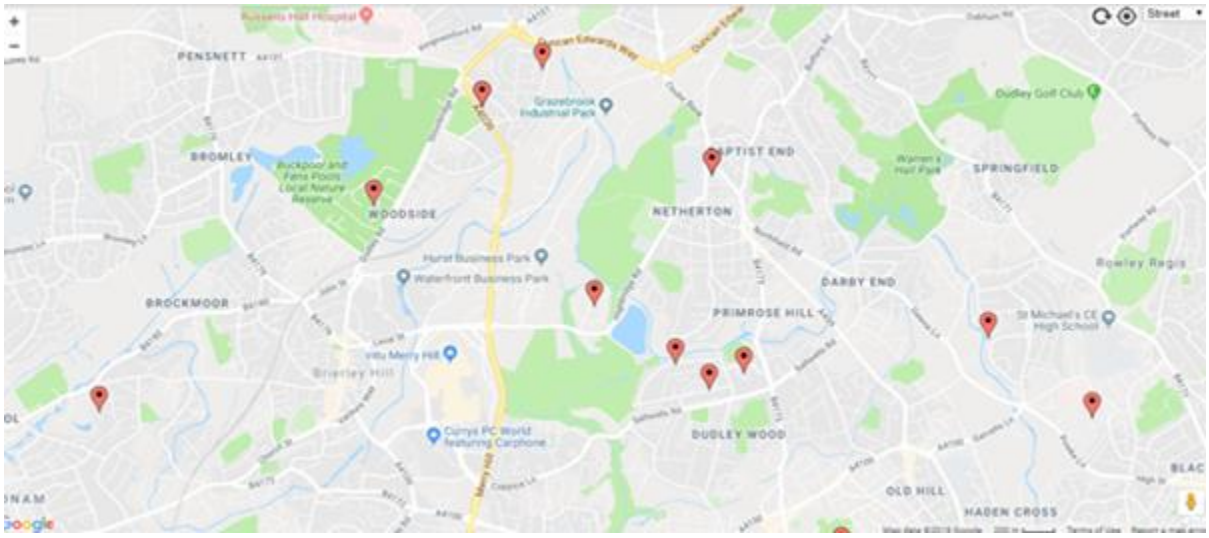


Figure 6.8 highlights the participant reach with regards to the target socio-demographic group. Data identified that 18% (*n=9*) participants in this hub were residents in the Netherton and Woodside area and thus from the target demographic group. Thus emphasising that 82% (*n=41*) of the programmes participants resided from outside of this area.

6.5.1.3 Smethwick

Within the borough of Sandwell, the BCiM hub of Smethwick provided 7 physical activity sessions, contributing to 193 hours of physical activity. This hub used 5 primary community locations to deliver varying physical activity and sport. The following maps identify the community locations used, the total number of participant residence and the reach of the interventions within the targeted area in this hub. Figure 6.9 identifies the activity locations, Figure 6.10 highlights the reach of the activities in this hub and

surrounding areas and Figure 6.11 examines the interventions reach with the target population.

Figure 6.9 Smethwick Physical Activity Session Locations

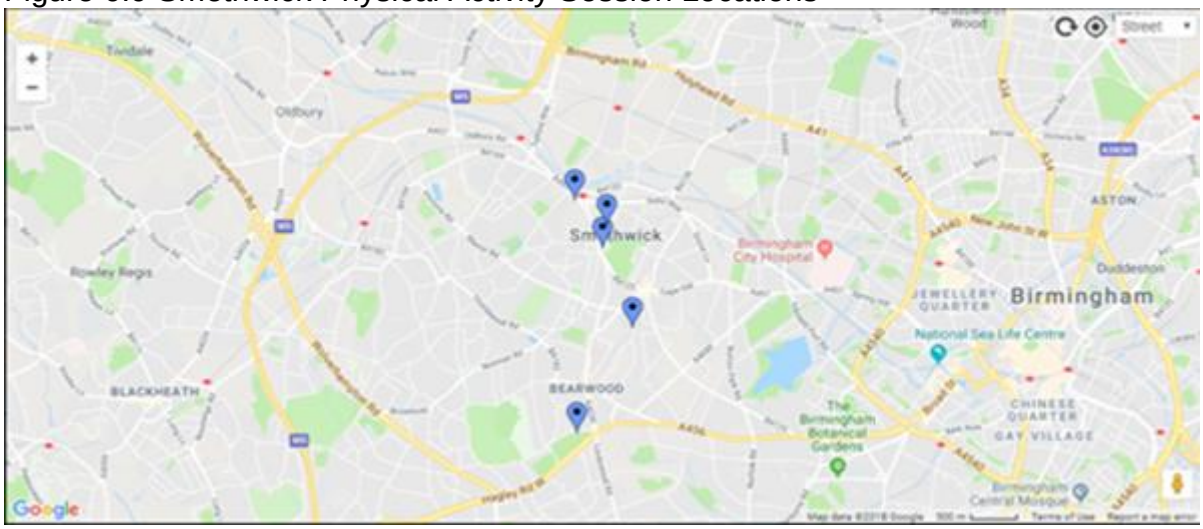


Figure 6.10 Smethwick Participant Reach

Data highlights that the reach of the BCiM intervention and it engagement of participants within the hub of Smethwick ranged across the Black Country and surrounding areas of Birmingham. The BCiM programme in the Smethwick area recruited 55 participants in total. Figure 6.10 examines participant's postcode data and identified that participants had travelled 10.6miles across the Black Country area and 7.2miles from the boroughs of Birmingham to access a physical activity or sport

session. This data suggests that participants would travel across borough boundaries to access the provision delivered in this hub

Figure 6.11 Smethwick Participant Reach in Target Area

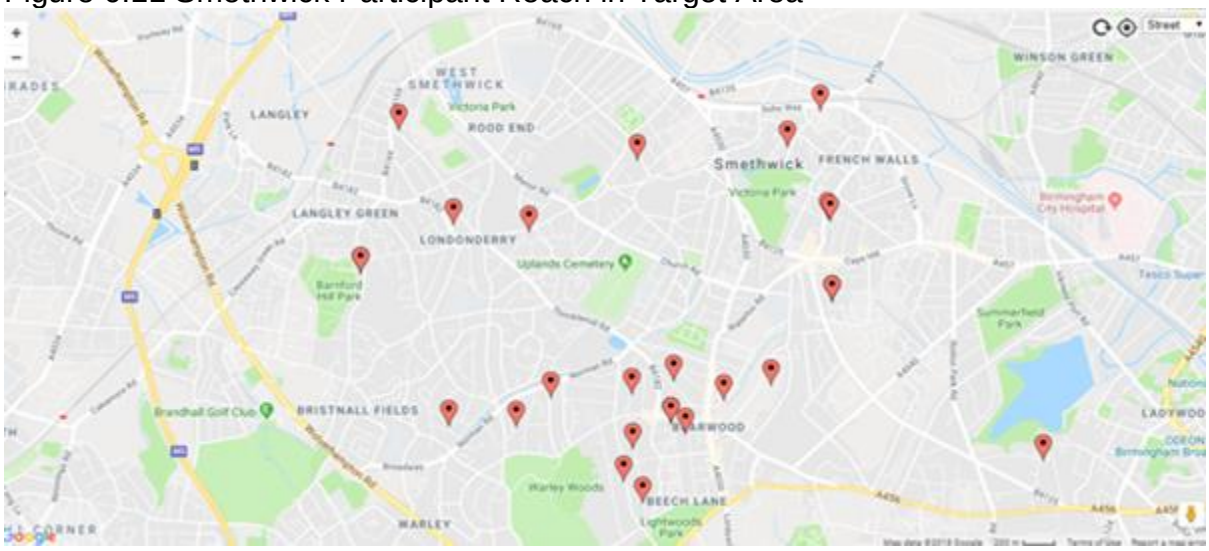


Figure 6.11 demonstrates the reach of the BCiM programme had in the target area of Smethwick, in which 38.1% (*n=21*) of this hub registered participants resided in the area. Thus 61.9% (*n=34*) of the registered participants were from outside of the target population groups.

6.4.1.4 Tipton Green

As the second hub in the Sandwell borough, Tipton Green hub delivered 6 sessions across 4 community based locations. This hub reached 105 participants who had registered to participate in varying activities. The following maps identify the locations of the community provision, participant's residence and the BCiM programmes reach.

Figure 6.12 Tipton Green Physical Activity Session Locations

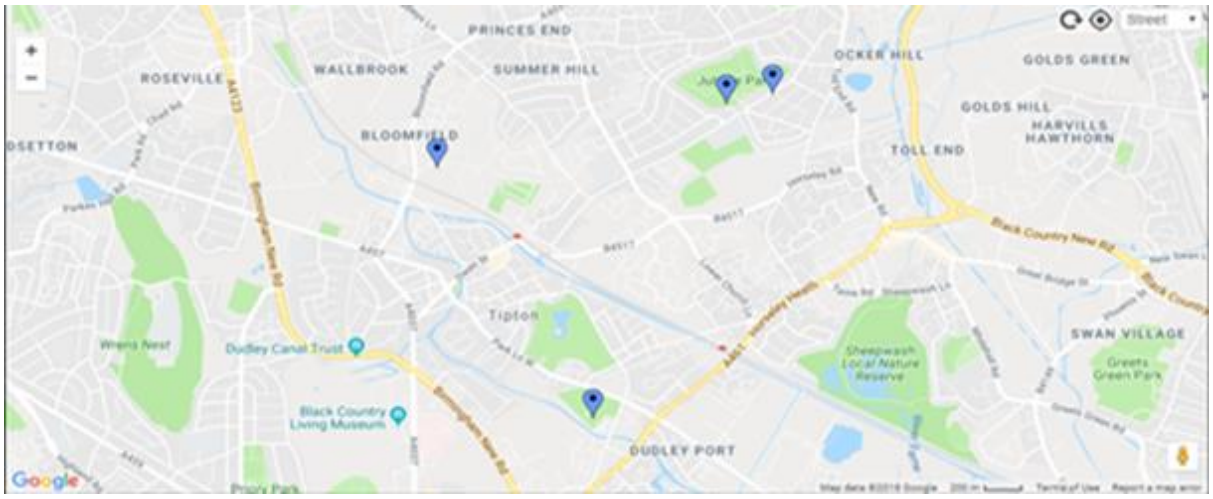


Figure 6.13 Tipton Green Participant Reach

Figure 6.13 identifies the participant reach of the BCiM intervention, identify the distance travelled by participants to reach the physical activity provided. Figure 6.13 determines that the furthest participants had travelled to access this provision was 8.3miles. Data highlights that participants travelled from the surrounding areas of Birmingham and Wolverhampton to attend the BCiM physical activity and sports sessions.

Figure 6.14 Tipton Green Participant Reach in Target Area

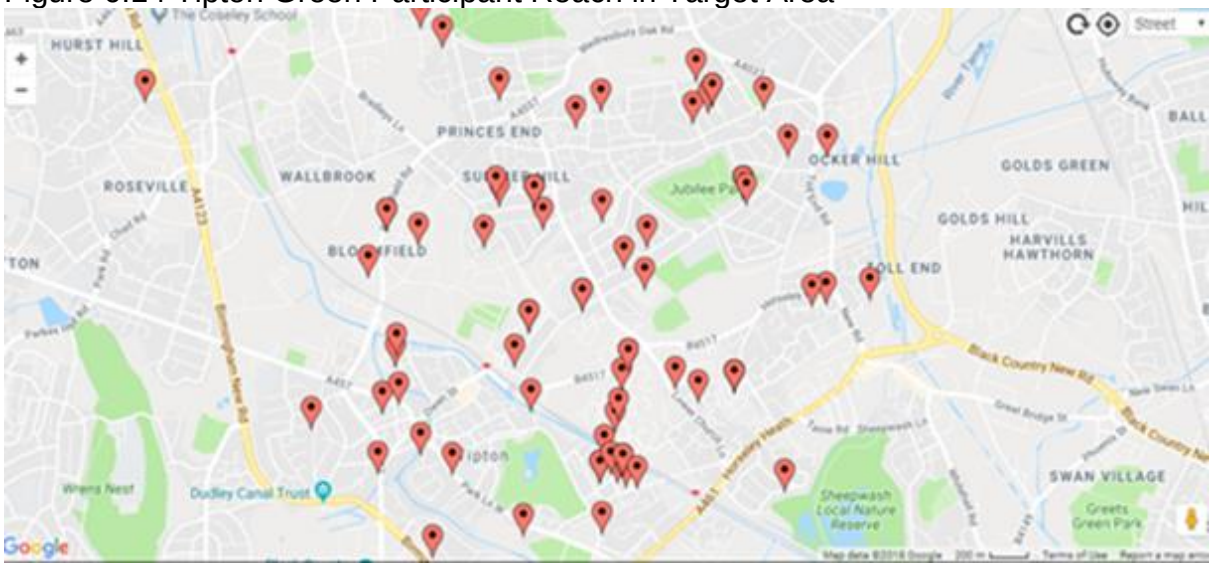


Figure 6.14 identifies the residence data of participants who resided in the target area of the BCiM's hub Tipton Green. Data determines that 53 (50.4%) of the 105 participants resided in the Tipton Green area and therefore suggests the participants met the criteria of the socio-demographic population targeted in this intervention.

6.5.1.5 Blakenall

As part of the borough of Walsall, the BCiM hub of Blakenall facilitated the provision of 10 physical activity and sports session and delivered 39 hours of activity through the duration of the BCiM. These 10 sport and exercise sessions were facilitated at 4 community locations in the Blakenall hub. The following maps (figure 6.15, figure 6.16 and figure 6.17) demonstrate the locations of physical activity sessions, the reach of participants and the reach regarding the targeted populations

Figure 6.15 Blakenall Physical Activity Session Location

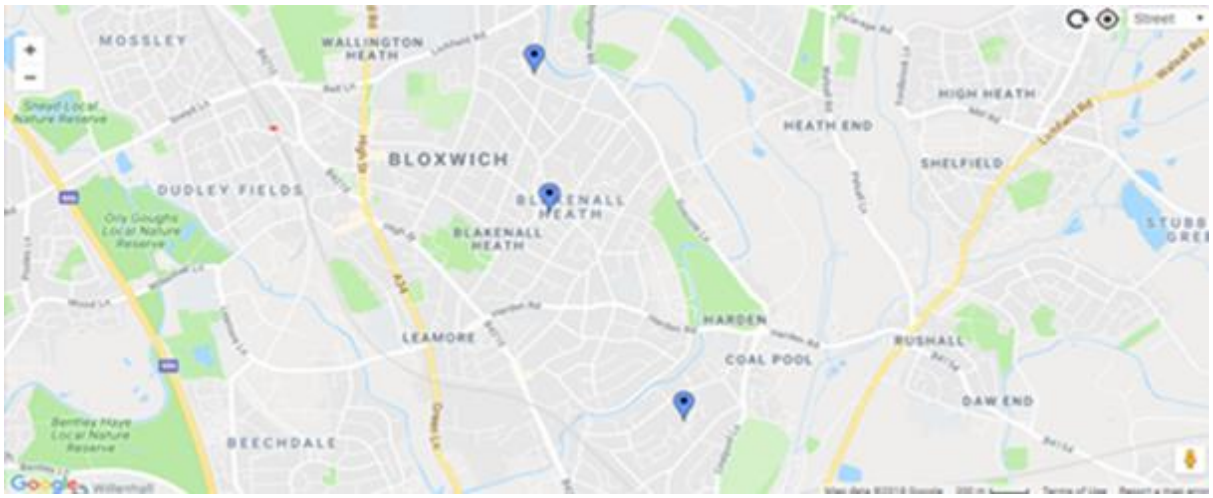


Figure 6.16 Blakenall Participant Reach

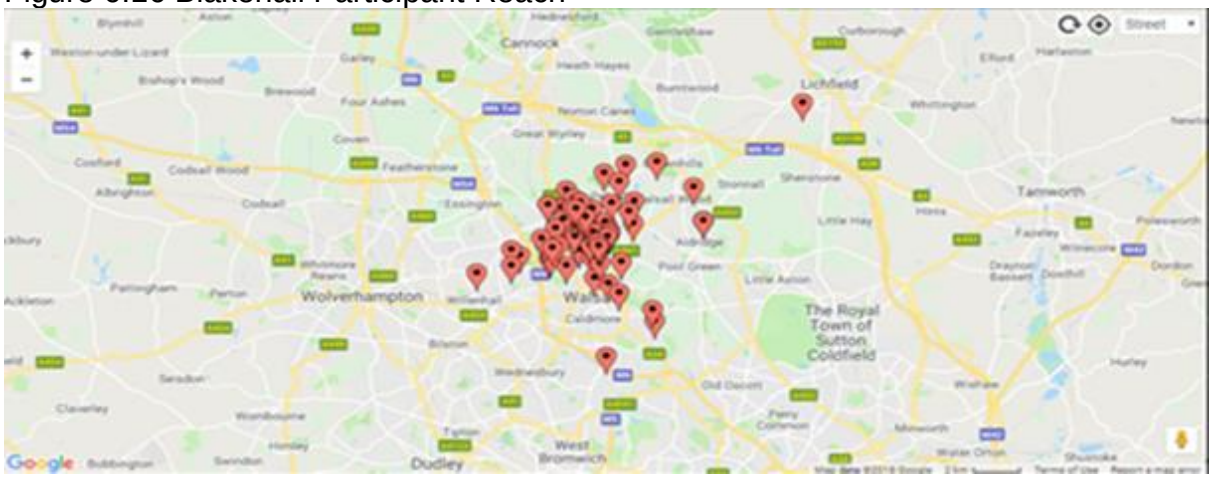


Figure 6.16 identifies the reach of the BCiM programme for this hub as ranging from the town of Redditch and across other wards and boroughs of the Black Country area. Data revealed that a distance of 30 miles was travelled by a participant and additional distances of 9.8 miles from the city of Lichfield and 15 miles from Halesowen, on the outskirts of the Black Country and Birmingham.

Figure 6.17 Blakenall Participant Reach in Target Area

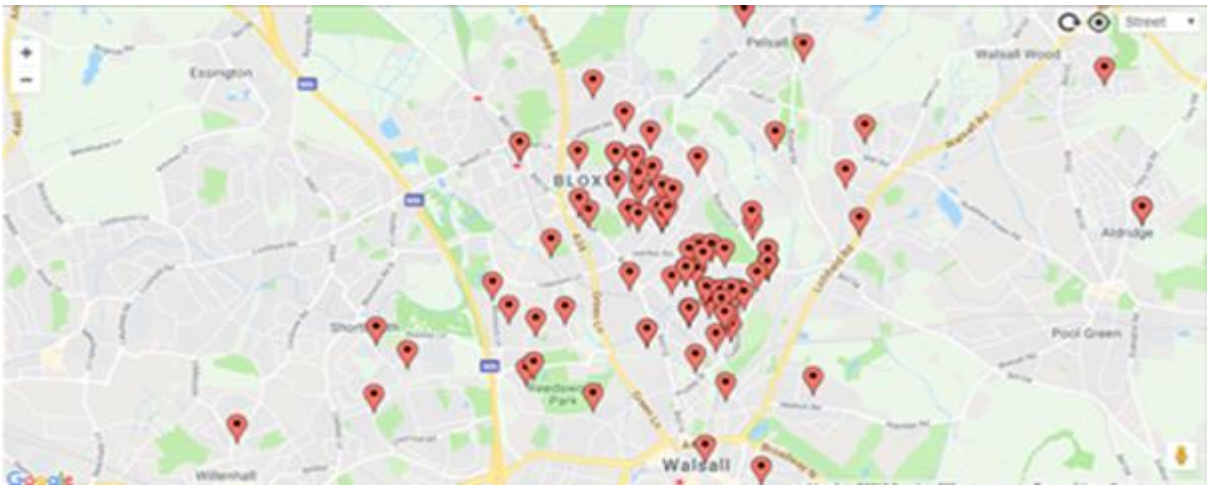


Figure 6.17 demonstrates the reach of the intended, target population in the hub of Blakenall. In total n=125 participants registered in the Blakenall hub. Data identified that 40.8% (*n=51*) of the registered participants of the BCiM programme were from the target population. However 59.2% (*n=74*) of the participants resided in other areas of the Black Country area, thus the socio-economic demographics and profiles of these participants differ from the target market segmentation groups

6.4.1.6 Bentley and Darlaston North

The hub of Bentley and Darlaston North was one of the larger hubs and incorporated 2 wards of the borough of Walsall. The Bentley and Darlaston North hub provided 9 physical activity sessions located at 3 primary community based centres. Figure 6.18 highlights the locations of the physical activity and sports sessions that were delivered in this hub. Figure 6.19 demonstrates the locations of the participant's residence and the reach of the BCiM programme across the Black Country area. This additionally highlights the distances travelled by participants to access these provisions. Figure 6.20 identifies the participant reach in the specified area for intervention.

Figure 6.18 Bentley and Darlaston Physical Activity Session Location

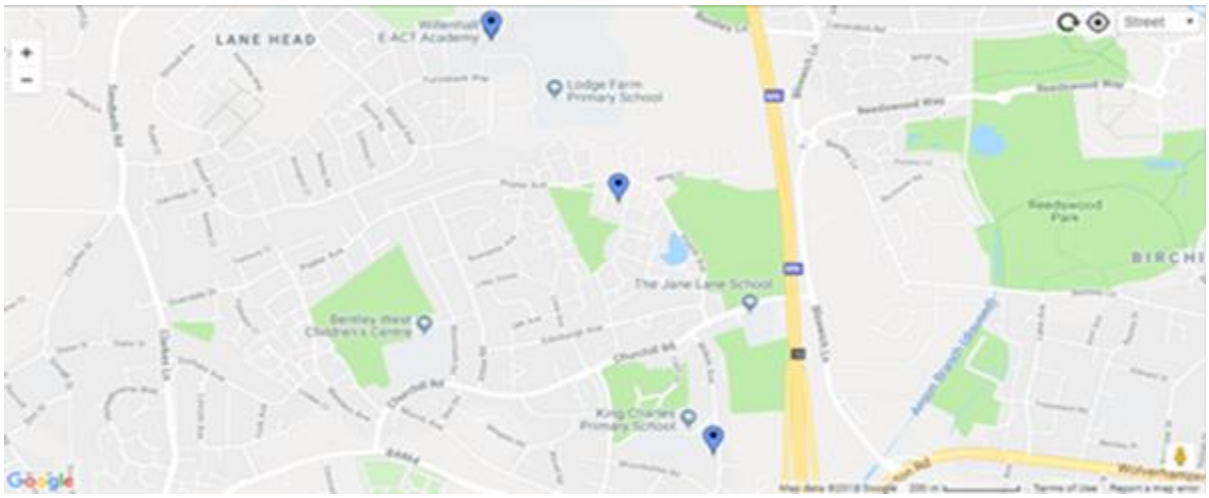


Figure 6.19 Bentley and Darlaston North Reach

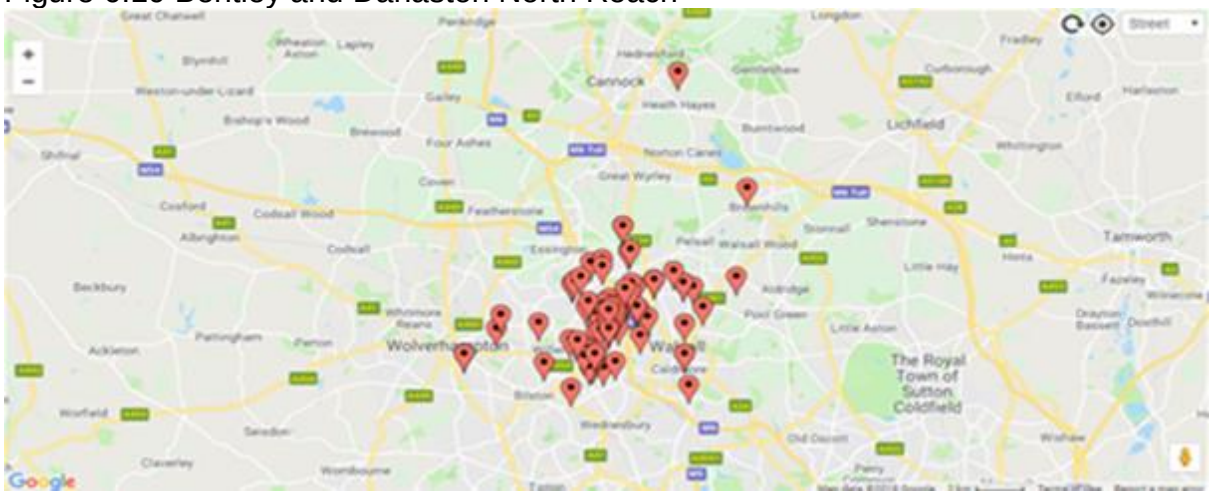


Figure 6.19 determines the reach of the BCiM programme in the area of Bentley and Darlaston North. Figure 6.19 identifies the location of the participants who registered to attend physical activity and sports sessions in this hub and the distances they travelled to access this provision. The above map identifies that participants travelled across the Black Country areas to access this provision and the furthest distance travelled was 13.1 miles from the surrounding areas of Cannock and Brownhills.

Figure 6.20 Bentley and Darlaston Participant Reach in Target Area

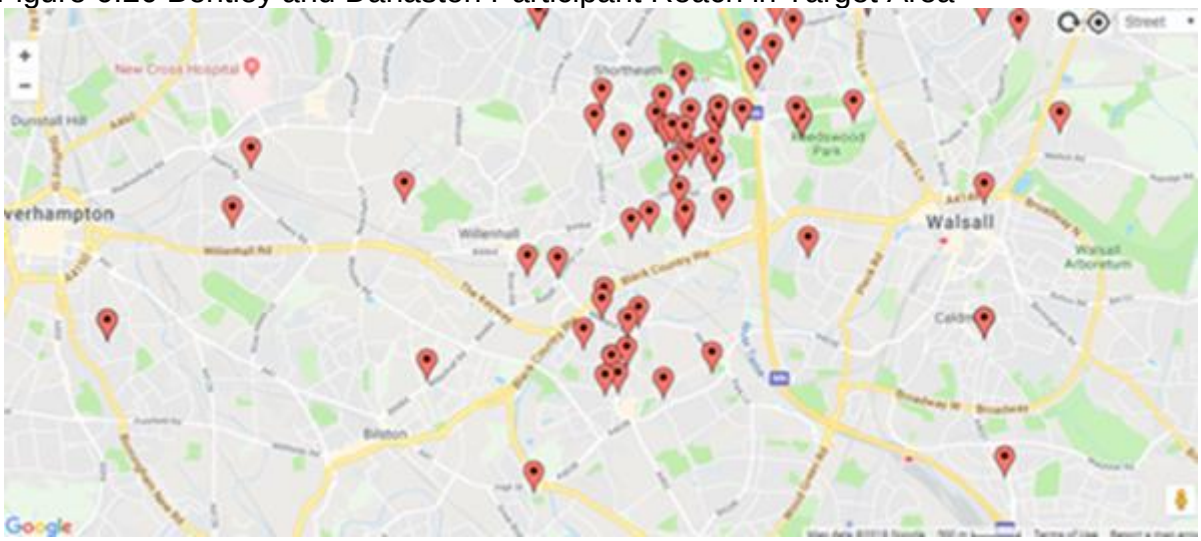


Figure 6.20 highlights the number of participants who accessed the BCiM physical activity session who resided in the Bentley and Darlaston North hub. Data highlighted that 100 participants accessed this provision, of which 39% (*n=39*) resided in the target area of this intervention. However 61% (*n=61*) travelled from outside of this area to access the physical activity and sport sessions facilitated in this intervention.

6.4.1.7 East Park

East Park is a ward in the borough of Wolverhampton and as a BCiM hub facilitated the provision of 10 physical activity and sports session in the BCiM intervention. East Park used 5 primary community facilities to deliver the various exercise and sports provided in this community intervention. To identify the reach of this intervention in the East Park hub the following map (figure 6.21) highlights the locations of the activity sessions delivered in this intervention. Figure 6.22 demonstrates the reach of the intervention in this hub and the distance travelled by participants to access this provision. Figure 6.23 examines the interventions reach regarding the specified target population.

Figure 6.21 East Park Physical Activity Session Location

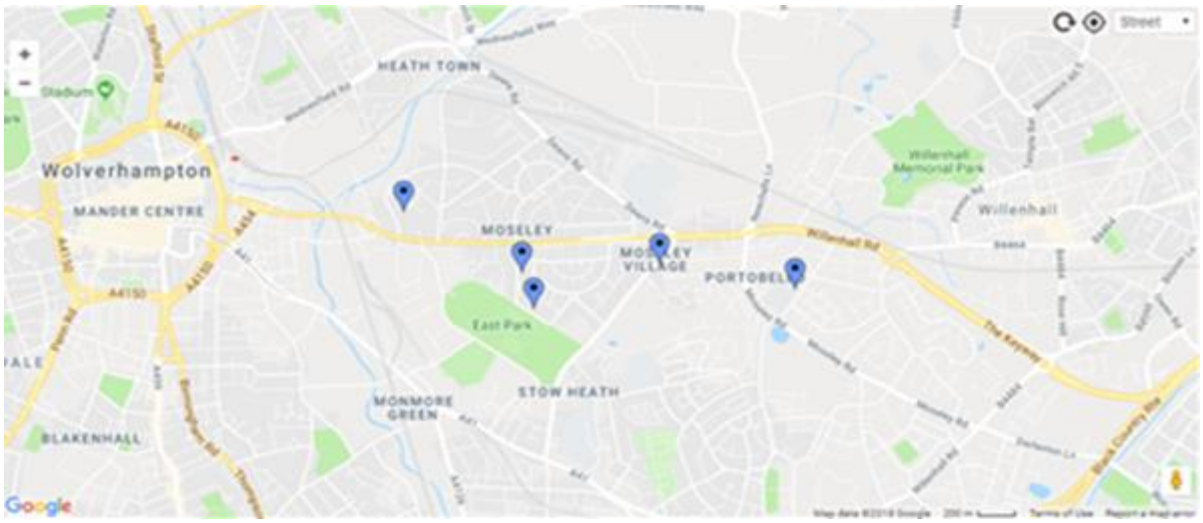


Figure 6.22 East Park Participant Reach

Data identified that the reach of the BCiM programme and the engagement of participants was across the Black Country areas of Dudley and Walsall. The BCiM intervention in the East Park hub engaged 152 participants in total. Figure 6.22 highlighted that a participant within this hub had travelled the distance of 11.9 miles to access physical activity provided as part of the BCiM.

Figure 6.23 East Park Participant Reach in Target Area

Figure 6.23 examines the participant reach in the targeted area. Data has identified that 152 participants engaged in the intervention, of which 44.1% (n=67) participants who registered or attended the BCiM programme resided in the targeted area of East Park. It was determined that 55.9% (n=85) of the participants that accessed this provision was from the surrounding areas of this hub.

6.4.1.8 Bilston East

The BCiM hub of Bilston East facilitated the provision of 16 physical activity and sport sessions, using 7 community and leisure facilities as locations for their facilitation. Figure 6.24 identifies the location of these activities. Figure 6.25 demonstrates the reach of the BCiM programme for participants who access this provision and Figure 6.26 examines the interventions reach within the BCiM's specific population group

Figure 6.24 Bilston East Physical Activity Session Location

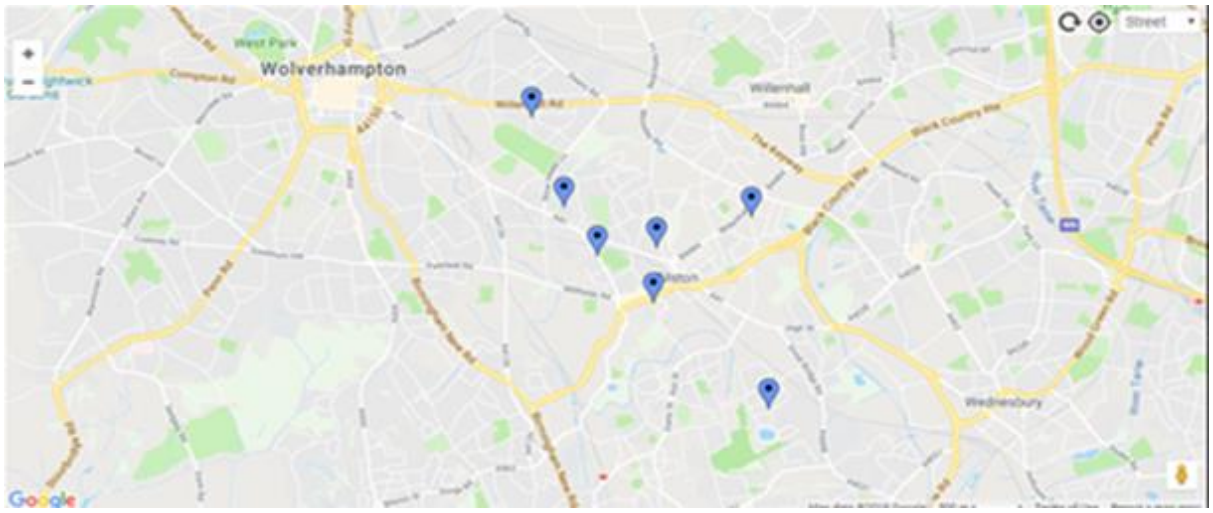
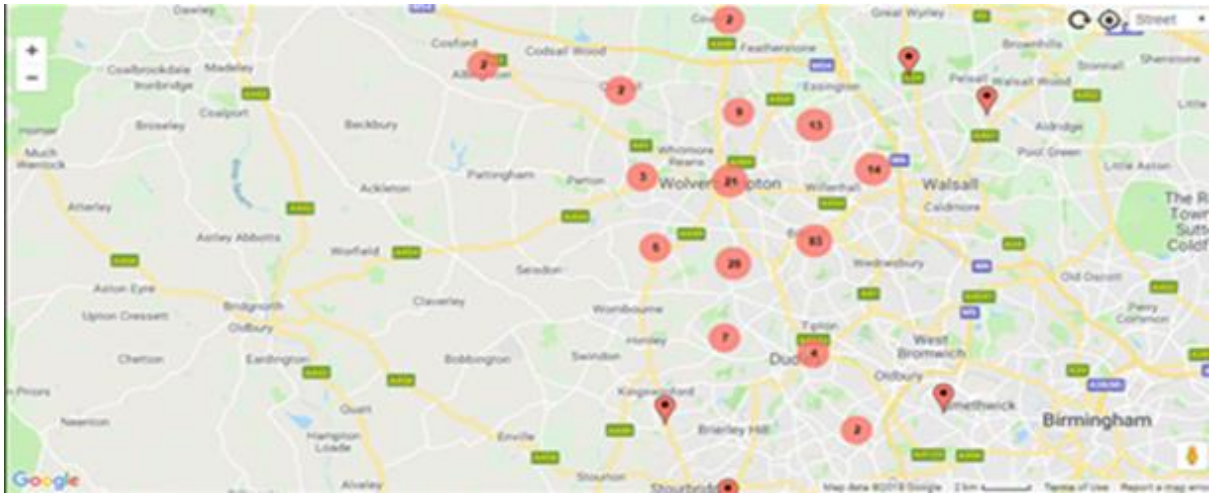


Figure 6.25 Bilston East Participant Reach



As highlighted in Figure 6.25 the reach of the BCiM programme was throughout the Black Country and its surrounding areas. Data identified that the reach of this programme had engaged participants from outside of the target populations group and participants from as far as Stourbridge (10.8 miles from activity), Smethwick (9.8 miles from activity) and Pelsall (8.8 miles from activity)

Figure 6.26 Bilston East Participant Reach in Target Area

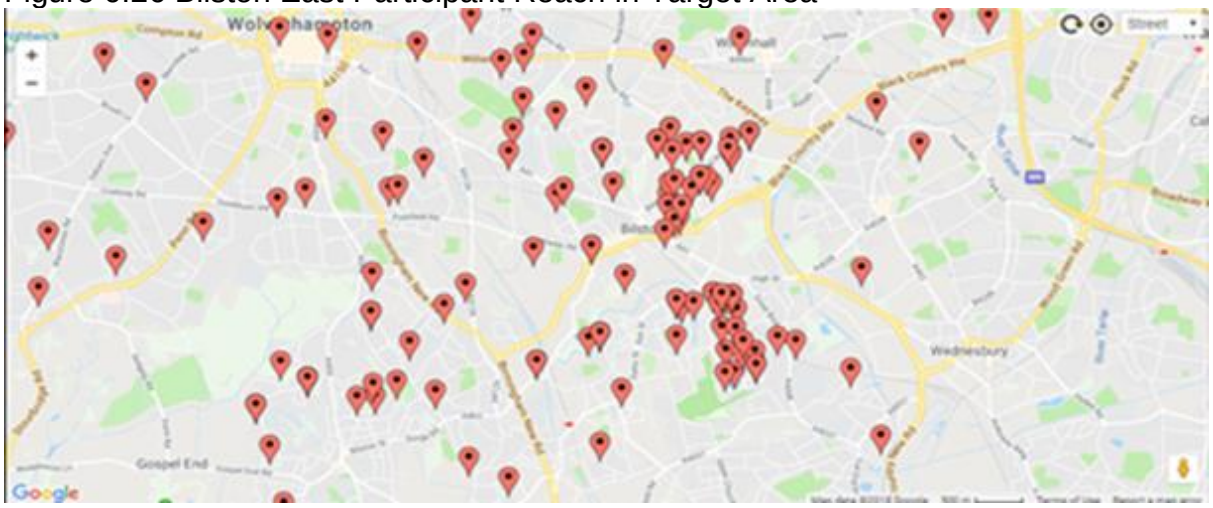


Figure 6.26 determined that 43.8% (n=89) of the participants who registered with the BCiM programme resided in the BCiM hub of Bilston East and were therefore the target population. However this data identified that 56.2% (n=114) of participants registered, resided outside of this area and thus the socio-economic demographics differ from the target group.

Upon analysis of this data, it was determined that 36.1% (n=358) of the participants who accessed the BCiM provision resided in the target areas. Therefore 63.9% (n=633) resided outside of this area and thus differed from the socio-economic demographics of the target group.

6.5.2 Reach - Participant Demographics

The below data was collected from participants who had registered with the BCiM programme at the point in which data collection had ceased. This data includes all participants regardless of inclusion criteria. The purpose of their inclusion was to identify the reach of the programme. Therefore the total of participants for this demographic analysis was 991, this included participants aged 12+ and those who were considered significantly too active. 39.1% (*n = 387*) male and 60.9% (*n = 604*)

female. The ethnic demographics of these participants were 66.5% (*n = 659*) of the participants in the BCiM were White, 6.9% (n = 69), were Asian, 5.3% (n = 53) identified as being of mixed heritage, 5.5% (n = 55) participants were Black, 1% (n = 10) were of another ethnicity; 5.5% (n = 55) preferred not to specify and 9% (n = 90) did not provide this information.

Upon exploring the employment status of the BCiM participants from this demographic 13.2% (n = 131) were employed, 3.7% (n = 37) were in school, 3.5% (n = 25) were in further education (FE), 0.2% (n = 2) were in higher education (HE), 0.8% (n = 8) were in training or apprenticeships, 4.4 (n = 44) were classed as NEET (not in education, employment or training), 5.9% (n = 59) preferred not to specify and 69.1% (n = 685) did not provide this information.

Table 6.4 provides a breakdown of the demographic groups per hub, identifying the gender, ethnicity and employment status of those who registered to participate in activities as part of the BCIM.

Table 6.4 Demographic and Socioeconomic Analysis of the BCiM programme

Hub	**Total Participants**	**Sex**	**Ethnic Demographics**	**Employment Status**

Castle and Priory (Dudley)	194	Male - 32.3% (*n= 63*) Female - 67.6% (*n=131*)	White - 52.6% (*n=102*) Asian - 7.2% (*n=14*) Mixed - 7.2% (*n=14*) Black - 6.2% (*n=12*) Other - 1.5% (*n=3*) Preferred not to specify - 25.2% (*n=49*)	Employed - 29.9% (*n=58*) In school -1% (*n=2*) In FE - 7.2% (*n=15*) In HE - 1% (*n=2*) In training - 1% (*n=2*) NEET - 3.6% (*n=7*) Preferred not to specify - 18% (*n=35*) Missing data - 34.2% (*n=89*)
Netherton and Woodside (Dudley)	50	Male - 46% (*n=23*) Female - 54% (*n=27*)	White - 74% (*n=37*) Asian - 4% (*n=2*) Mixed - 2% (*n=1*) Black - 4% (*n=2*) Other - 0 Preferred not to specify - 12% (*n=6*)	Employed - 16% (*n=8*) In school - 8% (*n=4*) In FE - 2% (*n=1*) In HE - 0 In training - 2% (*n=1*) NEET - 4% (*n=2*) Preferred not to specify - 8% (*n=4*) Missing data - 62% (*n=31*)

Smethwick (Sandwell)	55	Male - 29.1% (*n=16*) Female - 70.9% (*n=39*)	White - 27.2% (*n=15*) Asian - 34.5% (*n=19*) Mixed - 1.8% (*n=1*) Black - 5.4% (*n=3*) Other - 0 Preferred not to specify - 30.9%(*n=17*)	Employed - 7.2% (*n=4*) In school - 5.4% (*n=3*) In FE - 0 In HE - 0 In training - 1.8% (*n=1*) NEET - 0 Preferred not to specify - 16.3% (*n=9*) Missing data - 69.3% (*n=38*)
Tipton Green (Sandwell)	112	Male - 16.9% (*n=19*) Female - 83.1% (*n=93*)	White -67.8% (*n=76*) Asian - 17.8% (*n=20*) Mixed -6.2% (*n=7*) Black - 0.9% (*n=1*) Other - 0 Preferred not to specify - 7.1% (*n=8*)	Employed - 19.6% (n=22) In school - 0 In FE - 0 In HE - 0 In training - 0 NEET - 16.1% (n=18) Preferred not to specify - 3.5% (n=4) Missing data - 60.7% (n=68)

Blakenall (Walsall)	125	Male - 40% (*n=50*) Female - 60% (*n=75*)	White - 87.2%(n=109) Asian - 0.8% (n=1) Mixed - 5.6% (n=7) Black - 4.8% (n=6) Other - 0 Preferred not to specify - 0	Employed - 13.6% (n=17) In school - 5.6% (n=7) In FE - 0 In HE - 0 In training - 1.6% (n=2) NEET - 3.2% (n=4) Preferred not to specify - Missing data - 72% (n=90)
Bentley and Darlaston North (Walsall)	100	Male - 63% (*n=63*) Female - 37% (*n=37*)	White - 84% (*n=84*) Asian - 1% (*n=1*) Mixed - 6% (*n=6*) Black - 3% (*n=3*) Other - 2% (*n=2*) Preferred not to specify - 4% (*n=4*)	Employed - 4% (*n=4*) In school - 7% (*n=7*) In FE - 3% (*n=3*) In HE - 0% In training - 0% NEET - 4% (*n=4*) Preferred not to specify - 1% (*n=1*) Missing data - 80% (*n=80*)

East Park (Wolverhampton)	152	Male - 28.3% (*n=43*) Female - 71.7% (*n=109*)	White - 78.9%(*n=120*) Asian - 3.9% (*n=6*) Mixed -5.3% (*n=8*) Black - 7.9% (*n=12*) Other - 2.6% (*n=4*) Preferred not to specify - 1.3% (*n=2*)	Employed - 3.3%(*n=5*) In school - 4.6% (*n=7*) In FE - 1.3% (*n=2*) In HE - 0 In training - 0 NEET - 0 Preferred not to specify - 0 Missing data - 90.8% (*n=138*)
Bilston East (Wolverhampton)	203	Male - 55.6% (*n=110*) Female - 44.4% (*n=93*)	White -81.7% (*n=166*) Asian - 2.9% (*n=6*) Mixed - 4.5% (*n=9*) Black - 7.8% (*n=16*) Other - 0.5% (*n=1)* Preferred not to specify - 2.5% (*n=5*)	Employed - 6.5%(*n=13*) In school - 2.5% (*n=7*) In FE - 2% (*n=4*) In HE - 0 In training - 1% *(n=2*) NEET - 4.5% (*n=9*) Preferred not to specify - 1.5% (*n=3*) Missing data - 81.3% (*n=165*)

6.6 Attendance, Attrition and Drop-out

Attendance and drop-out varied throughout the BCiM hubs and activity. Some activities were run over a short term basis with the aim of referring participants to other activity sessions. Taking this into account it was considered participants that attended more than 2 activity sessions concurrently were regarded as engaged in the programme and those who attended less than 2 were regarded as disengaged. The following tables outline the attrition, engagement and drop-out of the participants who registered and attended physical activity sessions as part of the BCiM programme. Table 6.5 identifies participant attendance per session, frequency and percentage of attendance. Table 6.6 demonstrates engagement and attrition per hub.

Table 6.5 Participant Attrition and Engagement

Physical Activity Sessions attended	Frequency	Percent	Valid Percent
1	263	25.3%	32.7%
2	116	11.2%	14.4%
3	49	4.7%	6.1%
4	51	4.9%	6.3%
5	73	7.0%	9.1%
6	42	4.0%	5.2%
7	32	3.1%	4.0%
8	25	2.4%	3.1%
9	18	1.7%	2.2%
10	15	1.4%	1.9%

11	17	1.6%	2.1%
12	28	2.7%	3.5%
13	10	1.0%	1.2%
14	5	.5%	.6%
15	4	.4%	.5%
16	5	.5%	.6%
17	2	.2%	.2%
18	2	.2%	.2%
19	3	.3%	.4%
20	2	.2%	.2%
21+	43	5.3%	7.5%
Missing	235	22.6%	

Table 6.5 identifies the attrition and engagement of participants throughout the duration of the BCiM programme. Attrition rates were explored and it was highlighted that 32.7% (*n=263*) of participants dropped-out from the programme having attended 1 physical activity session. Participants who had attended 2 physical activity sessions and then disengaged were 14.4% (*n=116*). 52.9% (n=426) engaged in 2 or more physical activity session delivered through this intervention. However data further highlighted that 9.1% (n=73) of participants disengaged from the project after 5 activity sessions of engaged and disengaged per hub.

However, it must be noted that the attendance records were collated by volunteers and in doing this, there appeared to be significant inaccuracy in attendance records. Volunteers had received training in collating all data however it was highlighted by volunteers (see Chapter 7; Section 7.6.1) that there were challenges at times in the completion of the required paperwork and training was at times difficult (See Chapter 7; Section 7.6). The complexity of paperwork was highlighted by volunteers and participants as a barrier to participation and therefore it would be suggested that future practice examines an alternative method of recording attendance. Therefore the attrition rates using this method may provide an unclear picture of the attendance and attrition of participants. Although this may compromise the trustworthiness of this data, it does however highlight the need for an alternative tool to measure attendance.

Furthermore, it must be taken into account that volunteers had experienced difficulties in managing multiple methods of data collection. In some instances, volunteers were expected to gather IPAQ, demographic, PARQ and attendance registers alongside delivering a specific sport or physical activity.

Table 6.6 Participant Attrition and Engagement per Hub

Hub	**Engaged (2+ sessions attended) frequency**	**Engaged (2* sessions attended) Percent**	**Disengaged Frequency**	**Missing Data frequency**
Castle and Priory	84	43.3%	84	26
Netherton and Woodside	15	30%	16	19

Smethwick	29	52.7%	24	2
Tipton Green	39	34.8%	50	23
Blakenall	60	48%	47	18
Bentley and Darlaston North	68	68%	16	16
East Park	47	30.9%	58	47
Bilston East	84	41.4%	86	33

It is highlighted in Table 6.6 that an engagement in activities provided in the hubs of Castle and Priory, Netherton and Woodside, Tipton Green, Blakenall, East Park and Bilston East had an attrition rate of less than 50%. However it must be highlighted that a significant amount of data was missing. It should be considered in this instance that this may be due to the nature in which this data was collected (via activity volunteers and coaches).

6.7 Dose Delivered

The dose delivered or amount of exercise provision from the BCiM programme was assessed using field observations and data collected from the project activators and provided information of the area, activity, delivery status of the activity (if it was sustained or expired) and number of participants per session. This allowed the researcher to identify the activities which were successful and the dose delivered and received.

This section will examine the dose delivered by the programme and the extent to which this engaged its targeted audience. By outlining the session activities and the number

of hours of delivery, it is the aim of the researcher to identify the projects effectiveness through this aspect of the process evaluation. An examination of each hub's physical activity and uptake will be explored using a penned portrait of each area, identifying the activities provided and sustainability or success of the activity.

Over the 3 years of delivery, a total of 3306 hours of physical activity was delivered from the volunteers and sports coaches. The physical activity provided various exercise and sports to the communities identified in the BCiM hubs. Due to challenges in achieving the targeted 3000 participants in the initial project outcomes, physical activity hours delivered were thus affected by this objective.

It was the intention of the researcher to attend physical activity sessions and observe the exercise delivered. This was multipurpose in the fact that it ensured participants and volunteers were familiar with the researcher and the research process, enabled the researcher access to observe social dynamics and to identify the delivery of the session. The volunteers and/or coaches delivering the intervention, delivered the physical activity and collected baseline data, in accordance with the training they had received. Physical activity sessions were often well prepared and volunteers were quite often highly motivated. It was noted that some of the session delivered by volunteers failed to be sustained due to a lack of continuity, in which volunteers had failed to attend.

This impacted significantly on the attendance and longevity of the activity sessions. An example of this was highlighted by a project activator who was responsible for the management of the volunteers for this activity.

Footnote - (A full breakdown of activities can be found in Appendix V).

To identify the dose delivered, a breakdown of the activity sessions in each hub was examined and the number of hours delivered in each activity. Additional to this the total number of hours participants have exercised in these activities was explored. Table 6.4 identifies the number of physical activity sessions delivered, the number of those which were sustained at the end of funding, the number of hours delivered and the total hours of exercise achieved by those who had registered in this intervention.

Table 6.7 BCiM Activity Sessions Delivered - Dose Delivered

Borough	Hub	Number of Activities	Number of sustained activities	Number of hours delivered	Numbers of hours undertaken
Dudley	Castle and Priory	10	3	51	316
	Netherton and Woodside	5	0	10	59
Sandwell	Smethwick	7	1	42	193
	Tipton Green	6	2	42	219
Walsall	Blakenall	10	1	39	183
	Bentley and Darlaston North	9	1	68	224
Wolverhampton	East Park	10	3	37	217
	Bilston East	16	3	153	586

The results of this analysis emphasises the challenges in facilitation and subsequent sustainability of physical activity in these areas. The hub of Netherton and Woodside were challenging in the implementation of sustainable physical activity provision, engagement of participants in the research process was additionally strained. Additionally Tipton Green proved difficult to develop provision however it produced a significant number of activity hours and sustainable sessions, these sessions were run by participants who had trained to deliver activity within their communities. The session that were delivered and sustained in this area were women's running and fitness and Zumba.

Additional challenges to activity sustainability are highlighted throughout all BCiM hubs. In total 74 physical activity sessions were provided as part of the BCiM or alongside existing community organisations. Of which 18.9% (*n=14*) were sustained. When exploring these challenges there are a number of factors that influence sustainability. It was highlighted by the BCiM activators that physical activity sessions often expired due to low and unsustainable attendance or the activity was no longer supported by the volunteer.

Sessions that were successfully sustained through the BCiM funding were Walking Football, Circuits and Fitness sessions, Exercise to Music, Buggy Boot camps, 14-17 Football and Nordic Walking. These activities were delivered by community volunteers and/or participants who had undertaken training to continue the physical activity sessions as part of the BCiM programme.

6.7.1 Penned Portrait of the BCiM Activity Profile

The following will outline the individual hubs and the activities that were provided, the engagement of participants in the activity sessions and the sustainability of those

sessions. The data were obtained by the project activators and analysed at the final stages of funded delivery.

6.7.1.1 Castle and Priory

The ward of Castle and Priory are in the borough of Dudley and were a hub for the BCiM programme. This hub facilitated 10 physical activity sessions, attracting 124 participants and contributing to the 51 hours of physical activity undertaken in this hub. The activities in Castle and Priory hub successfully influenced four participants to become community volunteers, thus increasing social capital and community cohesion. Sessions delivered were; exercise to music, circuits, basketball, walking football, running and kickboxing. This introduced a number of new sports to the participants that engaged in these activities. From the 10 sessions facilitated in the Castle and Priory hub, 3 were sustained (Women's running, circuits and basketball). The sessions which were unsustainable were primarily ceased due to low and insufficient numbers.

6.6.1.2 Netherton and Woodside

Netherton and Woodside are additionally wards in the borough of Dudley and proved to be challenging with regards to the facilitation and participation of activities and sport. Exercise provision in this hub was essentially 4 sessions, which were developed alongside the existing provisions of Health in Motion (a health and diet initiative) and a police funded football session aiming to develop social cohesion. These activities were delivered by project activators and BCiM volunteers. With a total of 20 participants and 10 hours of delivery, these sessions were impacted by low attendance and therefore unsustainable. Subsequently the provision of activities and successful delivery in this hub was challenging.

6.6.1.3 Smethwick

The area of Smethwick, in the borough of Sandwell contributed 42 hours of BCiM provision and 193 hours of activity, through a number of physical activity and sporting opportunities. As one of the BCiM's more ethnically diverse hubs, facilities for activity ranged from local temples to community parks. 7 activity sessions were delivered in total and of which 1 activity session was sustained. A number of sessions in this hub focused upon family physical activity. A successful activity which was sustained and contributed 37 hours of physical activity was Pram Pushers, which recruited mothers with their babies. Other family sessions were exercise to music, table tennis and a beginners running activity. Due to low and unsustainable attendance, these sessions were not maintained.

6.6.1.4 Tipton Green

Tipton Green is an area in the borough of Sandwell and facilitated the provision of 6 physical activity sessions, 2 sustainable activity sessions, contributing 219 hours of activity and 42 hours of delivery. The higher demographic of female participants (81.3%), may be consequence to the activity of Zumba being delivered in 3 of the 6 activities provided. Additional sessions were family based multi-skills and a ladies fitness/running group which resulted in 2 of the sessions participants to train and volunteer for the delivery of this session. The sustainable sessions in Tipton Green were a Zumba and a fitness/running session, however the remaining 4 activities were impacted by low attendance and thus unsustainable.

6.6.1.5 Blakenall

In the borough of Walsall, Blakenall was a BCiM activity hub which provided a diverse range of sport and physical activity. 10 physical activity sessions were provided in this

hub, varying from walking football, Zumba, multi sports and boxing, of which 1 activity was sustained. The session which was sustained was a 14-17 football session which was delivered by BCiM volunteers. Other activities expired due to low attendance, end of provision from external providers (such as NHS primary care or housing groups), or volunteers leaving the programme. Existing community provision (walking football and a community gym), had joined the BCiM in order to develop participation and increase physical activity, however these activities often expired due to limited participation. Activity sessions contributed to 39 hours of delivery with 183 hours of activity completed in total.

6.6.1.6 Bentley and Darlaston North

Bentley and Darlaston North are wards in the area of Walsall. As an activity hub these wards delivered 68 hours of exercise and sport and contributed to 224 hours of physical activity. A total of 9 activities were facilitated, of which 1 table tennis session was sustained with the help of additional funding for sports provision. Activities provided within this hub was a combination of sports and exercise, including; cricket, football, walking football, multi sports and exercise to music. Successful activities were a youth football session however many of the participants were considered too active to qualify for this intervention. Sustainability of the sessions were significantly influenced by the low attendance and volunteer commitment to the programme. Bentley and Darlaston was a hub which provided a number of trial sessions with the intention of sign posting participants to further activities. However many of these sessions were poorly attended.

6.6.1.7 East Park

In the borough of Wolverhampton, East Park is a ward in which significant health and socioeconomic disadvantages are present. The hub of East Park was a challenge with regards to recruiting and engaging those who were disengaged in their communities. Unlike other wards it does not have a high street and the primary source of engagement was from those who frequented community centres and other provision. Regardless of this challenge East Park contributed 37 hours of physical activity delivery and sustained 3 activities with the support of Satellite funding. Activities that were sustained by further funding were table tennis, badminton and tennis. Activities that were delivered and unsustainable due low attendance were exercise to music activities, gentle exercise and walking football for the older community, resulting in the session ceasing.

6.6.1.8 Bilston East

Bilston East BCiM hub was successful in the fact that it delivered 153 hours of sport and exercise and 586 hours of physical activity were undertaken. With the delivery of the 16 activities, this hub sustained 3 activity sessions and delivered 7 taster sessions. Taster sessions included multi-sports and circuits and participants who attended these were sign posted to other provision. However these participants proved a challenge to obtain follow up information regarding the outcome of this intervention and if this encouraged further physical activity or sport.

A fundamental element of the success of this hub was a newly built leisure centre, which supported the delivery of activities such as walking football and Nordic walking. This centre was used by additional health provision therefore increasing recruitment through health referrals.

6.8 Dose Received

Linnan and Steckler (2002) define dose received as the extent in which participants are actively engaged with the programme. In this section, the researcher has chosen to consider three aspects of the data to assess active engagement. These include the use of attendance registers, hours of exercise completed by participants and participant and volunteer perception of the programme to determine active engagement in the project.

A log of attendance was recorded by project volunteers and/or delivery coaches and subsequently distributed to the project activators. However it should be noted that there were some limitations to this data, as it was collected by volunteers and at times there were challenges to register maintenance. It was highlighted by volunteers that the completion of registers was sometimes forgotten when new participants were introduced and were required to complete baseline data (occasionally with support of the volunteer). This data enabled the researcher to identify participants who had had prolonged attendance and those who had disengaged. Table 6.7 below provides an outline of those who registered in that hub, those who actively attended numerous sessions through the duration of the session and the hours of exercise undertaken in total.

Table 6.8 Evaluating Dose Received

BCiM Hub	Number of registered	Percent of total registered	Active engagement percent (frequency)	Hours of exercise
Castle and Priory	194	19%	43.3% (n=84)	316

Netherton and Woodside	50	3.2%	30% (n=15)	59
Smethwick	55	5.7%	52.7% (n=29)	193
Tipton Green	112	11.3%	34.8% (n=39)	219
Blakenall	125	12%	48% (n=60)	183
Bentley and Darlaston North	100	9.1%	68% (n=68)	224
East Park	152	16.1%	30.9% (n=47)	217
Bilston East	203	22.5%	41.3% (n=84)	586

Table 6.7 illustrates that the dose received throughout the BCiM programme was often below the target outcome of 50% following the 12 month time point. This highlights the challenges encountered when retaining participants in projects of this nature. This data highlights that the hubs of Netherton and Woodside (which experienced significantly low attendance) additionally experienced challenges in retention. However Smethwick hub also experienced challenges in recruitment and 52.7% of participants attended more than 2> physical activity sessions. Additionally Bentley and Darlaston North hub experienced challenges with regard to recruitment. However this hub contributed 224 hours of physical activity and 68% of participants were engaged in the programme. Castle and Priory and Bilston East hubs equally recruited a significant percentage of participants and contributed to 902 hours of activity collectively, However both had a high proportion of participants who disengaged from the programme, attending less than <2 sessions before disengaging.

6.9 Overview of Participant and Volunteer Perceptions

To identify the effectiveness of the BCiM in influencing the increase of physical activity and behaviour change, perceptions of the participants were obtained as part of the semi structured, narrative, interview process and informal conversations with the researcher. The narrative inquiries aimed to allow the participants and volunteers of the BCiM to outline their perspective of the programme. In this instance the experiences of participants was central to this element of the analysis, with the participants themselves considered an expert on the impact of this intervention on their personal social realities. Perceptions of participants were analysed by both those participants who had adhered and disengaged from this programme. Volunteer perceptions regarding the delivery and their experiences of their involvement in this process was additionally examined.

6.9.1 Participants

Data indicated that the participants who adhered to the BCiM programme felt that the programme was having a positive impact on their communities and personal health. Participant's attitudes towards physical activity, alongside confidence to engage in exercise and sport had improved. Primary themes that were gathered from interviews conducted with this group were; community, social support, social bonding, increased health benefits, recruitment and community engagement. Development of these themes are explored extensively in Chapter 5 however this section of the thesis is primarily based upon participant perception.

The majority of engaged participants interviewed as part of the BCiM programme, reported that they were happy with the BCiM programme. It appeared that they had enjoyed the activity and their experiences had influenced their adherence to exercise

and improved their health and wellbeing. Those participants who had disengaged from the BCiM programme had identified a plethora of reasons for this disengagement (See Chapter 5). This section primarily identifies perspectives of disengaged participants with regard to the operational elements of the programme. However, it should be noted that the participants used for this section and partook in the interview process and had continual engagement in the research process. These participants did not necessarily represent those who dropped out of the research process due to unhappiness with the programme and/or were unsuccessful in maintaining lifestyle changes.

The primary themes that were identified in this are developed further in Chapter 5 analysis of case studies. These themes were; community cohesions and social bonding, attendance and sustainability.

6.9.2 Volunteer Perceptions

A primary outcome of the BCiM programme was the training and deployment of community volunteers to facilitate physical activity provision, thus increasing social capital. Discourse within the paradigm of volunteerism inherently assumes the relationship between civic action and the development of social capital (Doherty, 2006). Recruitment target for community volunteers in this programme was initially 80, however a total of 120 volunteers entered the programme. An in depth analysis of the volunteer narrative has been highlighted in the previous chapter (Chapter 5). The following provides an overview of the volunteer's perception of the BCiM programme.

Primary themes that were highlighted by the volunteers in the process and delivery of this programme were the success they had witnessed in some of the groups participants. These successes were expressed as the changes in healthier

behaviours, such as uptake of additional exercise and social cohesion. Those who volunteered in the delivery of physical activity within the BCiM programme had reported they had enjoyed the process of training and in the majority of instances wanted to do more. Volunteers saw this programme as an opportunity to increase employability and benefit the community they delivered to.

Volunteers had enjoyed working with the participants of the BCiM and had reported that the successful delivery of exercise and sport was rewarding. It was highlighted that some volunteers felt they had a proportion of participants who had been successful in fostering behaviour change and introduced long term exercise adherence. When discussing a running session with a volunteer she states;

> *"I mean what is good is that we see an improvement in the lady that is there, the one that been attending, you can really see an improvement in progress and in how she's running. It's great"* (V4 - Dudley and Wolverhampton East)

> *"So they did a couple of invasion games. They loved it you proper saw the competitive side, they did really play well and they were really going for it once the competitiveness came out (laughs). And at the end of each, I really enjoyed it and for the first time I was really proud because they really enjoyed it."* (V5 - Dudley and Sandwell)

Operationally, volunteers were at times frustrated with the limitations and challenges experienced in recruitment, retention, marketing and the paperwork that accompanied the programmes monitoring and evaluation. Volunteers further highlighted that community engagement, marketing and support post training were lacking, resulting in slow recruitment, participant retention

> "*I think I was expecting it to be bigger groups or more people in the sessions, I wasn't expecting people to not attend. I had one session over Christmas where I only had two people turn up*" (V1 - Wolverhampton East)

Furthermore, volunteers and participants had taken responsibility for the marketing and promotion of the sessions they were affiliated to. This was viewed as a challenge to both groups and a frustration.

> *"I was expecting the advertising to be done and not to have to dedicate so much time to it. I think if advertising the sessions was different this would get more people to come down to the centre"* (EP8 - Wolverhampton East)

> *"I do like the idea of the t-shirt thing, it is a little bit of advertising thing for her (volunteer) as well, if people are wearing them out the would see it. And it is about keeping it going and keeping it working"*. (EP2 - Dudley)

Both volunteers and project facilitators suggested that towards the end of the programme, recruitment, engagement/participation and awareness of the BCiM programme was increasing. Emphasising disappointment that time limitations of the programme, meant that as the programme was gaining ground, it was due to end. Furthermore, as previously discussed, both participants and volunteers expressed concerns regarding the sustainability of the programme. However in regards to the

6.10 Programme Fidelity

The fidelity or efficacy of social intervention is defined by Glasgow, *et al* (1999) as the extent in which the intervention is delivered as intended. This section will compile the previous sections of this chapter around recruitment, reach, dose delivered and dose received, along with field observations gathered. The inclusion of a timeline of changes to the project will be included (see Field Observations - Appendix XII) and compared to the initial proposed delivery of the programme. Thereafter, an assessment of the challenges to recruitment and drop-out rate throughout the programme will be made.

6.10.1 Changes to Project Delivery

It was noted by the researcher the high staff turnover within this project over the 3 year period. This included the replacement of 3 Project Managers, 1 Project Lead and 2

project activators (see Appendix X). Alongside project volunteers leaving the programme as a result of work/family commitments, disagreements within social/community members or low, unsustainable attendance of participants. This impacted significantly upon the facilitation of the programme and with regards to volunteers the sustainability of activity sessions.

Challenges such as recruitment targets and restricted timelines resulted in the shift in project targets and outcomes. Participant inclusion criteria at times altered, including those who resided in more affluent areas of the Black Country and incorporating those who were too active. As demonstrated in Chapter 5 57.7% (*n=572*) of participants were identified as partaking in more than 1x30 minutes of moderate exercise and reporting a MET score of >99. This inclusion impacted the evaluation of the quantitative data, subsequently altering IPAQ scores.

Further changes were seen in the recruitment and deployment of community sports coaches. The purpose of this was to ensure the continuation of physical activity and sports session when a volunteer was unable to deliver that session. In some instances these coaches would temporarily replace volunteers who had left the programme, with the aim of sustaining provision until a replacement volunteer was found.

6.9.2 Overall Assessment of Project Efficacy

The BCiM was a community intervention which ran over the period of 3 years in the Black Country area. Physical activity sessions were ran by community volunteers through 8 hubs, which are identified as being socioeconomically disadvantaged, with high levels of physical inactivity. The assessment of project efficacy has so far been explored through examination of the projects recruitment, reach, dose delivered, dose

received. This has highlighted the challenges experienced when recruiting those who are inactive in community intervention. The following section will provide a summary of these outcomes, alongside the evaluation of attrition and the process used to evaluation this interventions effectiveness.

The initial recruitment target of 3000 participants over this period was not achieved, however successes where seen the recruitment and training of project volunteers. Difficulties in the recruitment of participants had an impact upon the results and efficacy of this intervention and thus limiting the ability to undertake a large sample study. As previously highlighted, the research focus shifted from a comparative study, using universal service as a control group. This alteration in focus was due to low participant numbers and upon reflection, the motivations of this group would differ. Through an exploration of recruitment strategy success and marketing reach, it has been highlighted that those who attend had done so following word of mouth and accessing that facilities used for delivery. This suggests those who were engaged in their communities and/or frequented the facilities and organisations used for exercise provision. Word of mouth and social media where a primary element of the recruitment strategy. On the basis of this, it could be suggested that if the project was given additional time, this could increase have participation over time. The exploration into BCiM brand recognition, within the project hubs, highlighted that awareness of free physical activity and sports was limited.

The initial reach of the BCiM project primarily aimed to provide exercise and sport for those who resided in the target areas. These areas were identified as having low physical activity levels and thus residents were the target population. However, as illustrated previously, 36.1% of the BCiM participants resided in these areas, therefore

those participants who resided outside of the target areas had different socio-economic demographics.

Despite using several different recruitment strategies, the BCiM programme were unable to recruit sufficient participants to meet the initial target set. This lack of engagement in the physical activity sessions, often resulted in insufficient attendance and the subsequent disengagement of participants. However, as identified in Chapter 5, it was highlighted that the BCiM had had impact in the fact that disengaged participants had sought alternative physical activity following the BCiM.

Overall, despite the challenges, it was considered the project had experienced successes and had impacted on the lives of those who took advantage of the opportunities offered through the BCiM. Participants who had adhered to the programme had identified increases in health and wellbeing, alongside the impact the intervention had upon community cohesion and social bonds. Participants who had disengaged had identified an increased interest in pursuing alternative exercise or sports. BCiM volunteers who had trained and adhered to the programme, had emphasised that the programme had enabled them to gain skills which would enable assist in future employment. Volunteers had additional identified that the BCiM had provided opportunities to benefit the communities that they resided in by offering this provision. Overall, it was highlighted by those who had engaged and adhered to the intervention that the BCiM had increasing social capital through its ability to create social bonds, networks and employability.

Project facilitators and volunteers had highlighted the marketing and promotion strategy of the programme resulted in a slow start to recruitment and thus impacted on delivery. Such delays in recruitment challenged the adherence to those who

attended. However it is important to recognise that these challenges are the reality of participation in real world intervention. It is common for projects such as the BCiM and those within the *Get Healthy, Get Active* initiative to experience short timescales for project provision and the requirement for delivery to begin instantly following the award of funding. This often results in limited time scales for marketing and promotion, slow uptake of provision and limitations to undertaking insight or needs assessments. Projects of this nature require such insight as they are continually changing to adapt to such findings.

6.11 Challenges to Project Evaluation and Challenges to the Research Process

To ensure continuity and standardisation across the Get Healthy, Get Active initiative, baseline measures to identify inactivity and measures to identify increases in activity were used. The IPAQ was used throughout this national initiative and it could be suggested that this form of physical activity assessment may have acted as a barrier to the research process. Upon initial contact with participants, a number of documents were required from the participant. This section examines the evaluation process and the effects this had upon gathering data and the research process.

Drawing on the evaluation processes of other *Get Healthy, Get Active* interventions, it was highlighted that the number of measures used to identify outcome effectiveness was considerable. It additionally illustrated that the data collection rates dropped off significantly. The following table 6.8 highlights the drop off rates of those who began the research process, providing baseline data, and those who completed follow up data collection.

Table 6.9 Engagement in the research process and collecting IPAQ data

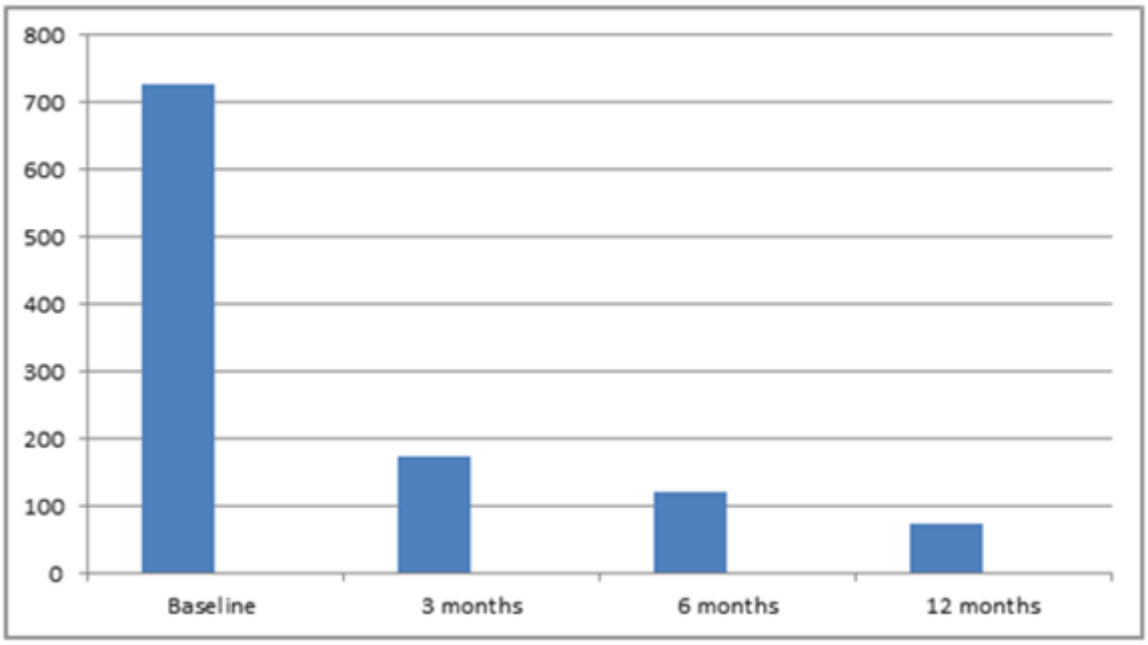


Table 6.8 highlights the challenges faced by the researcher to collate questionnaire data. As the majority of participants completed baseline data there is a significant drop off, and the attrition rates of research participants was high. From the 991 participants who registered with the BCiM programme, 789 participants met the inclusion criteria for the research process. With as few of 69 participants having had completed this measure over the intended 12 month period.

As highlighted in Chapter 5, the IPAQ has been a tool subject to criticism, a central concern has been centred around participant recall and self-report. Objective measures such as Fitbits and Smart devices not only provide a more accurate measure of exercise but allows easier access to data. Engagement in the research process may have benefited using a more objective measure, where participants uploaded physical activity using such devices.

The completion of baseline data included demographic information and contact details for participants. However at times participants did not provide appropriate or correct details. In some instances participants provided incorrect contact details and/or

incomplete forms. It could be suggested that these participants had little intention of adhering to the intervention and / or had not decided upon their commitment to the intervention. Therefore participants did not want to provide contact details, thus avoiding any further follow up or uncomfortable questions on disengagement.

In many instances participants had failed to complete all aspects of the paperwork, leaving significant gaps in the demographic data collated. Such gaps were highlighted in how participants had heard about the project and their employment status. It could be suggested that the quantity of questions impeded the completion of all questions. Alternatively, it could be suggested that the imposing nature of the data collection impacted on the degree of data completion. Furthermore imposing was the premise that participants were informed that a previso for them attending the activity session they had to consent to involvement in the research process.

Due to challenges in recruitment, a recruitment strategy was developed in which taster sessions for walking football was implemented. The project's activators facilitated these sessions, in which participants attended the activity or sport, and were later sign posted to BCiM sessions. It became evident that some of this participant group failed to provide correct details. An example of this was is a taster session in Smethwick which provided taster sessions with the aim of sign posting participants to additional activities. However, the response to the evaluation process was that these participants had limited engagement with the research process.

6.11.1 Engagement and Dropout in the Research Process

As an essential measurement of project effectiveness, participants who signed up to the activity were required to agree to engagement in the research process. However engagement in the research process appeared, in some instances, to be a deterrent

to participation. As highlighted in Table 6.10, there were a significant number of participants who failed to provide correct contact details (24.8% *n=258*) or did not respond to attempts at data collection (18.2% *n=189*).

Table 6.10 Participant Engagement with the Research Process

	Frequency	Percentage	Valid Percent
Engaged	182	17.5	22.4
No response	189	18.2	23.2
Withdrawn	92	8.8	11.3
Incorrect/ No details	258	24.8	31.7
Under 16	93	8.9	11.4
Total	814	78.3	100
Missing	117	21.7	

Table 6.10 identifies participant's engagement in the research process. This table highlights the challenges faced by the researcher in obtaining follow up

Additional challenges the researcher faced during the research process, was gathering qualitative data from participants who had disengaged from the programme. It was the intention of the researcher to obtain the perspectives and experiences of those who resided in the areas of the BCiM and disengaged following attending less than two activity sessions. However this demographic group appeared to be a challenge to obtain this data. Therefore an incentive of shopping vouchers were used to incentivise this group.

Contrary to literature that deems the incentivisation of research participants as ethically and morally questionable (Grand and Sugarman, 2010). Incentivisation for participants was considered, however due to budget restrictions it was not seen

as possible. There has been a dichotomy in academia when using incentives to gain research data, it has been considered a financial reward and can be used as a tool to coerce participants (Boddy, et al, 2017). When exploring other interventions funded by the Get Healthy, Get Active initiative, participants had received a financial reward of £20 for completing stages of the research process. However this was financially not viable within the researcher's budget.

6.12 Conclusion

This chapter outlines the findings from data collected to identify the processes undertaken to ensure the impact and effectiveness of the BCiM programme. The data collected demonstrated the effectiveness and challenges in the design and delivery of community intervention. This chapter identifies the challenges facing project efficacy and the effectiveness of the processes used in this community intervention. Adopting a broadly convergent approach this chapter has demonstrated the examples of each element and process of the BCiM programme to identify project effectiveness.

The following chapter (Chapter 7), will examine the BCiM volunteer and the impact of the intervention upon the community volunteer. Chapter 8 will discuss the findings that have been demonstrated in Chapters 5, 6 and 7.

Chapter 7 - Volunteerism and the Black Country in Motion Volunteer

7.1 Overview and Introduction

This chapter develops the findings from qualitative data gathered from the Black Country in Motions volunteers. These results incorporate the experiences of those who volunteered to deliver physical activity and those that volunteered following engagement as a participant, This analysis primarily highlights the effectiveness of the BCiM in developing social capital and examines the impact the community volunteer has up on community based provision. This chapter draws on qualitative data, which has been analysed to identify the narratives of the BCiM volunteer. Examining the impact of the BCiM on those who volunteer and the processes of volunteering in this milieu. This chapter delivers the findings from semi-structured interviews with the BCiM community volunteers, exploring volunteer successes and challenges. Additionally examining the acquisition of social capital within this group. An outcome of this initiative was to develop participants to become community thus ensuring sustainable provision. Therefore the volunteering experience of these volunteers have been incorporated in the analysis of this data.

7.2 Theoretical Overview of Community Volunteerism

An essential element to this community provision has been the involvement of the community volunteer. Volunteering in sport and exercise provision is a common in this sector, and is used as a social tool to enable social mobility, increase social capital and to generate social cohesion. Volunteering paradigms in this backdrop are either described as non-profit and/or civil society paradigms. Non-profit volunteering is relative to the ideals of altruism and philanthropy, whereas civil society paradigms are aligned with action contributing to social change.

Fundamental to community volunteering action is the concept of volunteerism, and is defined as the instrumental nature of the civil society paradigm. Volunteerism involves the planned, long-term, prosocial behaviour that benefits others and specifically community members. This activism and engagement of community members in civic action within such interventions, aim to promote safe and healthy communities (Eckstein, 2001). It is this paradigm of volunteering that underpins community based interventions. Community based volunteering primarily focuses on social, structural and environmental inequalities through the active involvement of community members and social organisations. Such organisations aim to contribute to enhancing community and integrate knowledge with action to benefit and develop the community involved. Hibbert, Piacentini and Dajani (2006) argue, such community development depends on the members of the community volunteering to take responsibility associated to collective action.

Traditional models for volunteering in this context have been used to develop communities and social capital. The contributions volunteering has made to a cohesive society and as a means to enabling social mobility, make this phenomenon an important element to community intervention. Discourse within volunteerism inherently seeks to assume the symbiosis of civic action and the development of social capital. Studies have highlighted the links between social and sport development, volunteerism and the increase of social capital. Prominent theories such as Bourdieu (1986), Coleman (1994) and Putnam (1995; 2000) have explored social capital within the guise of community development. Although their application somewhat differs, Differing from Bourdieu and Coleman's autonomous application of capital, Putnam's interpretation is inherently linked with community, communitarianism and social

capital. Putnam's explanation of capital introduces the notions of volunteerism in sports contributions to social capital. For Putnam, civic engagement was the process of connecting people with society. However the increase of excessive individualisation has resulted in the decline of social capital as a result to a reduction in civic engagement. Putnam's adaptation of Bourdieu theory, develops capital to include 'bridging capital' (akin to Bourdieu's concept) and 'bonding capital'. As an ideal, bonding capital focuses on community and social cohesion (Walseth, 2007; Harvey, *et al,* 2007).

This chapter will examine the narratives and experiences of the BCiM volunteers. Exploring the experiences of those who both adhered to the volunteering process and those who disengaged. Examining motives, barriers and intervention sustainability, this chapter develops the impact of the BCiM on the community volunteer. As an essential element to the delivery of physical activity provision in this community intervention, effectiveness of the BCiM in increasing social capital and social mobility was examined.

7.3 Motives and Aims Volunteering

This section focuses on the motives identified by BCiM volunteers to examine why they chose the involvement in this community intervention. The basis for this was to determine notions of community and to determine if this model of delivery was sustainable. Contextualising Putnam's (2000) theory of bonding social capital, Putman suggests that pockets of community contribution might persist where social bonds and civic engagement still exist. However this ideal does not explore when those bonds are do not exist.

The study of motivations, in a volunteering context, has been vastly researched and provided a dichotomous ideal between altruism and instrumentalism (Allen and Rushton, 1983; Barron and Rihova, 2010; Hibbert, Piacentini and Dajani, 2006; Carlo, Okun, Knight and de Guzman, 2005). Altruism draws on a sense of acknowledging the urge to sacrifice for the benefit and good of others. Whereas instrumentalism uses the volunteering experience in order to promote one's own interest, wants or needs. In the analysis of the BCiM volunteer motives, it was the intent of the research to identify a contextual understanding of the volunteer's aims for engaging.

There was a distinct divide in motivation between those that were engaged in the volunteering process of the BCiM. Volunteers either had altruistic desires to facilitate provision for a community or used the volunteering process for personal development. In an interview conducted with volunteer 3, it was highlighted that the volunteer intended to use this experience to benefit her community.

> *"I'm motivated by my community and how I can grow and develop to help my community grow. Any future possibilities we can get to develop the gym, the enterprise and the community or anything that can benefit our community is what drives us and I reckon that is the general feelings of anyone that lives on the estate and uses the centre over the road or hub".* (V3 - Walsall)

Further altruistic motives were highlighted by volunteer 1, who had reported that she had wanted to provide some physical activity for the ladies who attended her temple. Volunteer 1 had previously attempted some informal physical activity for this group prior to the BCiM however this had not succeeded.

> *"I have always wanted to put on an exercise or fitness session for the ladies here as there hasn't been any provision and I have tried for ages to get the ladies to come to classes at (name - leisure centre)… They really don't do any physical activity or sport…. I just want to help really, you know I've been in the temple with the ladies and seen how they don't do any exercise or sports and exercise".* (V1- Sandwell)

Other volunteers had reported community enhancement as a motive to volunteering;

> *"I did say to (name - activator) when she first came that's why I wanted to put on in the community centre, that we needed to put activity sessions exercise classes get some sport going you know what mean. And that's what my aim is".* (PV1 - Dudley)

> *"I do it for the community really, it's good getting people from the community coming up here and using the centre"* (V9 - Walsall)

Instrumental uses of volunteering has seen the value of volunteerism as a means to develop employability skills, and as a tool for positive self enhancement, acquisition of career skills, employment opportunity and enable social mobility (Rochester, *et a*l, 2012). Instrumentalist motives for volunteering are becoming vastly common with in today's society, with many employers seeking employees that have this experience (Stukas, Snyder and Clary, 2016). It was highlighted by volunteers that this intervention would enable them to gain experience and thus increase their employability;

> *"I have done that much volunteering just to demonstrate experience of my CV, there's that much of it I can't remember it (laughs). The idea was to get quite a lot of volunteering in and have quite a lot of broad experiences".* (V4 - Dudley and Wolverhampton East)

> *"I aye [have not] done any before this, when we was at college we were told it (volunteering) would help with getting experience".* (V7 - Walsall)

When exploring motives for volunteering, volunteer 7 (V7) goes on to express motives further instrumental motive, reporting that she had used the BCiM exclusively to increase experience and employability;

> *"… It's to get experience to help me get a job. Any experience like this is gonna help you get a job… It's a great opportunity really to get qualifications and experience like to help you get a job in the future… and I know the only way that is gonna happen is if I get experience doing it and stuff"*. (V7 - Walsall)

> *"I wanted to look at getting a different job, a change of career and that was my main motivation whenever I thought of volunteering but I think that has changed over time. I think now my motivations are a mixture of that and adding a bit of doing something I really enjoy doing, like running and then there is a little bit of me that has a loyalty to the girls that come on a regular basis"*. (V10 - Dudley)

> *"I wanted to improve my employability. Volunteering in a community setting is the best way to put the theory you get at uni and apply it in a practical setting".* (V15 - Sandwell)

> *"I do think I will carry on volunteering at the running groups, don't think I'm ready to give that up. Obviously it would be a lot to do with my job, volunteering somewhere else but it's that experience that I like to get. I definitely have an interest in trying lots of different sports, volunteering and trying different things. Think it's because I haven't found that one thing that really motivates me, in my job it is mostly nutrition mainly so it is quite important, well it is for me to be able to do other things so I can link it in with sport… And then there was uni we were encouraged to volunteer whilst we were at university, you are told to volunteer to put something on your CV. When we were at uni we used to have (inaudible) Wednesdays at Leeds Met, where we were encouraged to help out in our communities"* (V4 - Dudley and Wolverhampton East)

> *"Community volunteering was something that i was always thought about doing and it definitely makes you more employable if you have had experience with the people it's targeted at".* (V14 - Sandwell)

There was a difference in adherence to the project, between those that had identified altruistic motives and those that had reported instrumental motives. Those who had instrumental motivations, volunteered for a shorter period of time and in many instances this resulted in either a gap in provision or the ceasing of the session. However in some instances those that reported community being a primary motive for engaging in the BCiM programme, appeared to have instrumental motives for engagement. Due to public funding cuts, many community centres and those who volunteered in them had to seek additional funding to maintain them. Therefore although motives were altruistic in nature and community oriented, these motivations were somewhat instrumental.

> *"... It's an expensive place to run and the committee are always looking at ways to generate money or interest in the centre. That's why we try and work closely with the local business too. If we can get more people through the doors the better"* (V9 - Walsall)

> *"I didn't originally start it with the intention of becoming a volunteer. I started it thinking I was doing it to get fit…I thought I can't fit that in, I had originally said I can't do anything else, I do enough, I just can't physically fit in… but what my main aim was and to get people into the community centre"*. (V13 - Dudley)

"*"My aim was to get people into the community centre. I think getting new people in so they can hire at the centre and the hall and put different things on at the community centre is something that we really need to do."* (PV1- Dudley)

Although it could be considered somewhat instrumental to use the BCiM to attract people to their venues, such motivation could be a further expression of their community values. By engaging in this volunteering process, it could be suggested that this draws more on community activism and communitarianism, as an expression of community values. Communitarianism offers a pure source for social values, mutuality and social networks through the emphasis of kinship and the rejection of individualism (Etzioni 2014; Leadbeater, 2002). The BCiM project was essentially designed upon ideals of community, social cohesion and communitarianism, being specifically driven and led by volunteering, community activism and social identity.

Further motivations were expressed by volunteers as they wished to engage in one's social reference group. These social groups were predominately within a religious setting and drawing on Penner's (2002) theory pro-social personalities often have elements of religiosity. Those volunteers who had previously referred to prior volunteering and community, all related their experiences to the religious communities or settings they were part of.

"I really wanted to deliver classes at the temple for the ladies, they really do live their lives doing no exercise at all. I wanted to help them … There are some opportunities in the leisure centre but I wanted to carry on doing it in the temple… but that's not what I want to do." (V1 - Sandwell)

"I have volunteered for my temple for a long time now, just with helping out in the kitchen and organise things there and I do an Easy Line gym class in (name-area) now… in the past I have volunteered for help the aged and done some work volunteering for the council with older people." (V2 - Wolverhampton East)

It was noted by the researcher that four of the volunteers interviewed for this study were actively involved in their places of worship and prior to this volunteering experience had volunteered within these social groups.

7.4 Self-efficacy and Confidence in Volunteering

Many of the BCiM volunteers had little to no experience of volunteering in physical activity and/or sport prior to the BCiM. This resulted in decreased self-efficacy and a lack of confidence prior to delivery. It was highlighted that feelings of anxiety and apprehension were experienced by many volunteers prior to delivery and the training courses they had attended. Akin to the participant experiences of self-efficacy discussed in Chapter 5, self-efficacy increased over a period of time.

- *"I wasn't expecting it help with my confident cos I am a shy person but it has helped loads and to be honest it's given me more confidence"* (V7 - Walsall)

Confidence in delivery was discussed by many of the volunteers that had no prior experience in the delivery of sport or physical activity. Confidence during the period of attending courses and undertaking appropriate training was additionally discussed. The self-efficacy of the volunteers at this point was somewhat low as it was highlighted that they had concerns about their own ability to undertake tasks.

> *"When I turned up, like I said I was expecting loads of really fit runners there but to be fair there were a really good mix, it was actually nice to be with other beginner runners. I learned loads from it though and it kind of gave be the confidence to think about other courses… There is one, a boxing one I saw, in fact it was (name - activator) who told me about it and thought it would be a good qualification to have, just building up the confidence*". (V10 - Dudley)

> *"I think I was actually expecting loads of people to turn up to do this and them to be keen to run and that is what it would be like all along but there has been a lot of people who work with (name) who has been to one and they haven't been back. That really worried me at first... I thought it was something I was doing but after talking to some of the girls that come regularly I think it was more the activity and changing it for the ladies ability",* (V6 - Dudley)

> *"I think one of the things that has been a challenge for me though has been keeping the session from being the same, I have only done the 8 steps in tai chi and I sometime feel that that limits the exercise session"*. (V2 - Wolverhampton East)

A common theme that occurred when examining the confidence of BCiM volunteers was their physical appearance and how it contrasted their perceptions of the physical activity volunteer. Volunteer 1 (V1) states;

> *"After I had my son I had put on a lot of weight and I just had this thing in my head like that people aren't going to want to do exercise that is led by someone who is overweight and not stick thin. It was that that really put me off doing it before, I mean I'm not what you would typically think of when you think of a sports coach or a fitness instructor. It wasn't until I got talking to some of the ladies at the temple and they had said they would attend that I thought that maybe I could do it."* (V1 - Sandwell)

> *"I started this because i wanted to lose three stone, we tried to diet and it just day [did not - sic] work….But I'm actually really nervous about being a new instructor because of how i look and I've have got to get to know everybody, it's new and I've got to learn how they do things"*. (PV4 - Sandwell)

In an informal conversation, participant to volunteer 3 (PV3) had referred to herself as "*not exactly a picture of fitness*" and dismissed herself as a role model in this context. Fundamental to the design of this intervention was the concept of '*someone like me*', which was developed through previous insight (See Cradle to the Grave as discussed in Chapter 1; Section 1.6.1). However this is somewhat juxtapositional when examining role model literature in behaviour change and physical activity. The primary principles to this theoretical concept is developed from Bandura, (1977), who examines learned attitudes and behaviour from others. Therefore it is suggested that the professional's behaviour and attitudes towards fitness can inadvertently influence behaviour of others through modelling. Drawing on research undertaken by (McKown, Brusseau, Burns and Galli, 2019) the physical appearance of a physical activity lead can affect those in receipt of their direction. This is supportive of Cardinal (2001) who argues physical and health educators are role models of good health. Furthermore,

Mitchell (2007) proclaims that it is hard for someone to care about their fitness, active lifestyles and perform at their best when those leading the physical activity are unfit, inactive and low-skilled. Developing this further, social learning theory can influence behaviour change both socially and with regards to the individuals motivation to change (Cardina, 1994). However as a volunteer in this milieu it is suggested that these…

This highlights the physical activity self-perceptions of a number of this volunteer group. Physical self-perception profiles, in those who are adopting healthier behaviours are explored by Fox and Corbin (1989) who suggest there are four subdomains to self-perception. These subdomains include perceived bodily attractiveness, sporting or physical competence, physical strength and physical fitness. Applying this theory, it can be suggested that volunteers must overcome these variables to have an increased self-efficacy.

Such increases in confidence are identified in a follow up interview with V1, who discussed increases of confidence through continual delivery, Stating:

> *"I am a bit nervous about starting a new thing because it's not really going to be just the ladies from the temple, it's going to be other ladies and they are all ladies that are going to have a similar body to mine because they're all going to have had a baby recently. They will have the same motivations to lose weight and get fit after having a baby so it takes away that feeling of body confidence"* (V1 - Sandwell)

Further increases in confidence are identified by volunteers 3 and 10, who report;

> *"I haven't been very good at sport or anything like that and I just have images of skinny people or really muscly people turning up and being really good at it and I can't do anything but at least I won't be on my own, I know that (name) and (name) will be there too doing the same course. I mean that I'm a middle aged, overweight woman, who has never done any sport or anything like this before, it's a lot to be worried about if you have to perform or be assessed for something like this"* (V3 - Walsall)

"I'm honest I was dreading it thinking there would be loads of people and I wouldn't know how to coach them all and they would be different abilities and it would just be a disaster… I was worried and I was pretty nervous, I think I was more worried about looking unorganised and to let people down. I really didn't want to let people down". (V10 - Dudley)

7.5 Sustainability

This section is twofold in that it explores the volunteer's attempts at maintaining the physical activity sessions and that it examines the adherence of the volunteers and therefore sustaining physical activity sessions. When implementing physical activity provision, those sessions that had low attendance were subsequently ceased as they were considered unsustainable. Whilst participant attendance levels fluctuate and/or decreased for many of these activities, this often resulted in the disengagement of volunteers. Although they did not withdraw, those who were more community motivated had moved to other provision within the programme.

As highlighted in Chapters 5 and 6, sustainability was a result of attendance, which was subsequent to recruitment and the marketing of the physical activity sessions. Many of the BCiM volunteers worked alongside the project activators in the promotion and marketing distribution. As low attendance in activity sessions resulted in unsustainability, volunteers often took responsibility for session recruitment.

"I would say getting people to the group is a bit of a challenge the marketing and advertising has been hard work, as I said before the ladies from the committee and me have been out putting up posters and giving out flyers but it hasn't worked". (V2 - Wolverhampton East)

"It is hard to plan what you going to do when you don't know who's going to be there… But we still you need marketing and need to publicise the sessions otherwise nobody is going to be there", (V12 - Walsall)

"Even though (name) is a volunteer, she's a health trainer for Dudley Council and it was something I had mentioned to her and to see she could get some of the people she works with to come to the sessions really. And to be fair she has

asked what few people and they have said that they would haven't". (PV5 - Dudley)

The sustainability of the activity sessions was an element of the BCiM that volunteer's reported concern, Volunteer 9 had discussed his attempts at ensuring some community physical activity was sustained, by facilitating a football session when participants had not arrived.

> *"It's a bit hit and miss with them turning up…. There is about 5 or 6 dads and lads turn up one week then we won't see them for a bit. We have begun to run a football session with the boys that turn up for the boxing if the boxing doesn't happen so either way people are doing something".* (V9 - Walsall)

However V9 goes on to discuss the challenges in this and its effects on sustaining the physical activity session

> *"Well it's hard when you only have 1 or 2 and there are loads of kids cos they don't want to stick around. I wouldn't want to walk into an exercise class to something to a room full of kids. I would say that that's why some of them haven't come"*. (V9 - Walsall)

Drawing on field observations and in an informal discussion, V2 had reported her attempts at changing physical activity to ensure a variety of exercise when participant attendance was low. When discussing recruitment V1 had reported that;

> *"... It wasn't for the want of trying. I did ask some ladies from another temple if they wanted to join us but it's kind of the case that they stick to their own. Like if they go to the main temple in the high street of Smethwick, they just stick to one and do stuff within that temple. The Asian community stick to their own (laughs)"* (V1 - Sandwell)

A common theme which was explored in this study when discussing sustainability was the volunteer's expectations of the programme. Volunteers indicated that they had expected the BCiM to be more established due to its affiliation to the Wolves Community Trust (football club) and to have larger groups of participants.

> *"What I have seen in the Black Country in motion people are very hard, it's like here they don't exercise, and it's very hard to get people out to do exercise...The thing is it is about not getting people to the classes, that is something that I think*

> *that they could be doing more of because I was expecting more people and I think that hasn't been a very positive experience I mean not having the people come to the sessions."* (V2 - Wolverhampton East)

Further expectations were in reference to the BCiM's affiliation to Wolves Community Trust (WCT), which was highlighted by volunteers and participants (as discussed in Chapter 5). Due to extensive community work undertaken by WCT and its links to Wolverhampton Wanderers football club. Those engaged in the BCiM expected a higher number of participants. Volunteer 14 states;

> *"I just thought it was gonna be a bit more professional. I mean having your mate trying to coach when you're a course that's meant to be through the Wolves didn't give me confidence in what I was doing really.* (V14 - Sandwell)

7.5.1 Continuity and Attendance

An essential element to sustainable provision was the continuity and attendance of participants, specifically in sessions that required consistent participant attendance, such as walking football. The low attendance of participants for activities such as this was identified as being ineffective in changing health behaviours.

> *"when you think that on a walking football session we would get a couple of men turn up and it was hard work to get more people there, your car [cant] really say the project has affected anyone...but I could tell that it wasn't that good for them that turned up like*. (V7 - Walsall)

Continuity and adherence to the volunteering process was witnessed in other guises. A number of volunteers had changed physical activity session once the sessions were deemed unsustainable due to low participation. Volunteer 1 explains;

> *"so I was doing the sessions at the temple and then I found out I was expecting (a baby) so I had to sadly stop the classes when I got too big,,, i was sad to leave the temple but some of the ladies had stopped coming, it was getting darker and it seemed like the right time to stop. So now my baby is a bit bigger I have wanted to concentrate more on getting back into delivering, so I went back to (name activator) and told her I was interested in starting volunteering again and she mentioned buggy boot camp.... I thought was an amazing idea and couldn't wait to do. I'm just waiting on the details but I should be starting*

> *another course to start delivering the buggy boot camp thing at the local park in Smethwick"* (V1 - Sandwell),

Volunteers 2, 4, 5 and 11 had additionally changed activities during the delivery of the BCiM programme, in some cases this required the volunteer to obtain further qualifications and moving to different communities.

Volunteering in community provision at time was not feasible due to other commitments. It appeared some volunteers were unable to sustain their volunteering activity due to work and / or family commitments therefore impacting the continuity of the programme.

> *"I haven't volunteered with a group for like a couple of months because of work and other commitments"* (V6 - Dudley)

> *"I got the impression they wanted me to go again but because it was in the day I couldn't really fit in with work, and obviously when I got this full-time job I couldn't fit in, that restricted the hours that I could actually put into the Black Country in motion as a volunteer"*. (V4 - Dudley and Wolverhampton East)

Due to a change in circumstance, PV6 was unable to deliver the activity in which she had been allocated. Stating that;

> *"I couldn't do the Zumba stuff there and that, erm I kind of feel like, i don't know, I think I feel a bit like i have let them down and don't want to think that the group will stop because i couldn't do the Zumba. I think i felt guilty because (name - activator) has become a good friend too and I feel like I have let her down. But you have to do stuff for yourself sometimes and that can sometimes mean you can't volunteer to do things and that… I just couldn't commit and that, not with (name) and the other half working and stuff.*" (PV6 - Dudley)

As discussed in Chapter 5, intensity of the physical activity delivered was an element that at times discouraged participants. Some volunteers had at time suggested concerns with the intensity of the sessions and in some cases their ability to differentiate the activity. Such occasions where intensity was too high often resulted in the disengagement of the participant (as discussed in Chapter 5).

> *"Some of the girls that have turned up half way through the running programme they are having to run nearly a mile to warm up and I can see that as something*

> *that would turn people off if they haven't run before and if they don't know if they like running even"*. (V10 - Dudley)
>
> *"Unfortunately one of the ladies has unfortunately dropped out… I think it got a little bit too challenging for her"*. (V4 - Dudley and Wolverhampton East)
>
> *"When we turned up we only had 4 people and they didn't seem too impressed with what we were trying to do with them, they really struggled and then the next week the other volunteer didn't show up so I was on my own and no people came".* (V14 - Sandwell)

Drawing on the work of Cuskelly (2008) and Cuskelly and O'Brien (2013), transition from participant to volunteer was often an extension of involvement in the activity or sport. This was homogenous to those who had transitioned from participant to volunteer. However contrary to this, those who had transitioned in Cuskelly's studies had taken with them knowledge and understanding of that activity or sport. Whereas the BCiM volunteers had had significantly less experience.

Developing activity sessions and being limited to the skills volunteers had as a result of the insufficient experience or training opportunities additionally impacted upon sustainability. Additionally it resulted in volunteers wishing for further training;

> *"I would like to eventually be paid for this and I think the more qualification you can get the better, maybe use the qualifications to get paid to instruct or provide classes doing gentle exercise for older adults. I would like to be a tai chi instructor but that's expensive, to get the qualifications anyway but I want to speak to (name - Activator) about him getting me on to a level 3 course.*" (V2 - Wolverhampton East)

7.6 Project Implementation

The implementation of the project was discussed by volunteers in which they had identified barriers and challenges as a result of the projects design and delivery. Within this section the projects processes, delivery and implementation are explored, examining the marketing of activity sessions, the monitoring and evaluation process and delays in deployment.

7.6.1 Marketing and Session awareness

Essential to the recruitment strategies of the BCiM (identified in Chapter 6), the effects of the marketing and activity awareness of this project was developed. Volunteers had suggested that the marketing of the project was insufficient and this resulted in limited recruitment. Volunteer 12 states;

> *"I was expecting but I thought I would be teaching bigger groups and that the advertising of the sessions would have gone a little bit better than it has, I was expecting the advertising to be done and not to have to dedicate so much time to it. I think if advertising the sessions was different this would get more people to come down to the centre*" (V12 - Wolverhampton East)

In the process of evaluation, elements of the projects monitoring and evaluation was discussed. It was highlighted by some volunteers that the paperwork required to measure the effectiveness of the BCiM at time had acted as a barrier to engagement and participation.

> *"Again the paperwork, it's really 'cause there are some dads that have come up here and walked out when given the papers… the other session up at the gym have had similar problems. I know (name) has had a few ladies at the dance… keep fit class on a Saturday that have refused to fill it in. I think 'cause some of the people around here, especially some of the older dads I've come across, can't read or write well, they will see that (points at papers) and leave"* (V9 - Walsall)

It was reported by volunteers that in some instances the paperwork used for the monitoring and evaluation acted as a barrier. As an essential element to the intervention, the process of gathering baseline and socio-demographic was identified as a challenge. During a telephone interview with volunteer 8, it was highlighted that the paperwork required impacted on the volunteers experience and delivery;

> *"All the forms are a pain, there's loads of them and having to get those done before a class and then try and do registers for people who have filled in the forms and those that hadn't, it was a pain… it was too much hassle and took too long"*. (V8 - Walsall)

It was additionally discussed by volunteer 1 that there were language barriers in the delivery of paperwork within specific groups. Although there are some translations of the IPAQ, it was not applicable to certain demographics. Additionally, further documentation was required, alongside follow up data collection. Volunteer 1 discussed the challenges she had experienced during the initial engagement with her participant group, stating;

> *"The ladies from the temple there are a few of them who don't speak or read English and I had to spend quite a lot of time with the ladies at the beginning of the sessions to go through the questionnaires and other paperwork. I just got the ladies to sit down and I translated it but I was having a bit of a panic thinking about if I had anyone new in who need me to translate and how I was going to deliver a session at the same time but luckily that never happened "* (V1 - Sandwell)

The completion of paperwork was additionally discussed by V5 and V3

> *"We haven't been doing the paperwork, it just seemed to be too much of a hassle paperwork finishing it I have a drawer full of forms".* (V5 - Walsall)

> *"I had one woman that just threw it back at me and laughed and said she wasn't gonna do it. Really have tried to get all that paperwork done, but it's just something that people don't want to do so I kind of gave up on it. It was a lost cause in the end so I just left it, i was worried actually put people off coming up here and I did try everything could to get them to do it*" (V3 - Walsall)

During the initial implementation of the BCiM a number of volunteers had been recruited. However due to the time it took to deploy these volunteers, the majority had disengagement in the programme. In an informal discussion with 2 of these volunteers, it was highlighted that they had expected the programme to be more established. Following initial recruitment these volunteers had attended physical activity courses and had then waited to be deployed. This delay resulted in volunteers disengaging with the programme and seeking alternative volunteering opportunities. Drawing on field noted gathered during the evaluation period, it was highlighted that the initial recruitment of volunteers resulted in the majority leaving the programme following attending sports/exercise courses. Disengaged volunteers stated;

"I spent ages waiting to be placed and when I did it wasn't what I expected at all… I was expecting more people, like for it to be a bit busier". (V15 - Sandwell and Dudley)

"I think I waited about 2 months before I got put on placement and I know some of the people who were on the induction with me left before they were in placements because they were waiting". (V14 - Sandwell)

"If I'm being honest I have to say it hasn't been what I expected. I was expecting a bit more support and it to run a bit quicker". (V8 - Walsall)

7.7 Social capital

In the context of sport it has been discussed that sports participation is viewed as providing opportunities for people to develop trust and social norms (Putnam, 2000). Jarvie (2003) suggests that sport and associational activity can contribute to building levels of trust in culture, society and contribute to democracy and community spirit. However, it has been documented that measuring social capital in a community context can at times be somewhat challenging (Harvey, *et al*, 2007). Whilst sport has been viewed to contribute to developing social outcomes, it has been recognised that the empirical evidence is limited (Coalter, 2008). Drawing on the framework of Putman, it was the aim of the researcher to examine capital that is specifically synonymous with community. Therefore the following will report instances of bridging and bonding capital pertaining to Putnam's theoretical perspectives.

It was evident that those that had engaged in the BCiM programme had acquired varying capital be it, the development of social bonds or bridging capital identified through increased employability. Therefore this section is twofold in that it seeks to identify the development of community bonds as a result of this provision and the bridging capital that enables social mobility. The emerging themes that were developed from the analysis of volunteer narratives were, ownership and belonging, communitarianism, social bonds and developing social mobility.

7.7.1 Developing Community and Social Bonds

A primary theme that emerged from this study was the sense of community that had developed between the volunteers and the participants of the BCiM. Where bonding capital was created, it had established relationships and solidified friendships between activity sessions. For instance volunteer (V2) had reported that providing physical activity to the older adults at a Wolverhampton community centre, had made her feel "*you are part of that community centre*". Volunteer 11 (V11) discussed the relationships he had formed and the impact he felt he had had by stating:

> *"I helped people change their attitudes and change their outlook. I can say I have helped improve the general wellbeing of the community. I'm not just doing this for my own gratification"*. (V11 - Dudley)

For volunteer 3 (EV3), developing social bonds was essential to facilitate the community provision she was involved in. She emphasises this by suggesting the following;

> *"We try to be as happy, helpful and as friendly as possible to make this place a good place to come, it's important to us, me and (name) like to make this place a friendly place, community is really important to us… having this place you are more invested in your community and I think if you are from (name- estate) then you somewhere that benefits your community, it is really important and it feels like a community up here."* (V3 - Walsall)

7.7.2 Developing Social Mobility

The impact of community based sport can influence the social position of an individual and enable social agents to improve or maintain their social position (Shaaij, 2009). Social mobility refers to the movement of individuals or collectives between different social positions within socially stratified systems. Social mobility can either be horizontal in which an individual moves within their own social groups, or vertical in which an individual moves from one social group to another. The development of

social mobility can be measured in terms of indicators such as changes in the level of income, occupations or educational attainment. It can be suggested all volunteers that had engaged in the acquisition of sport and physical activity qualifications, had acquired some degree of social mobility. As qualifications and educational attainment increase social capital and mobility.

Social mobility and the development of capital is not exclusively individualistic and can include the social environment and factors that include the contribution of others. An example of this is seen in the sessions in which participants had then gone on to volunteer and deliver physical activity. In this instance social mobility was experienced with the collective actions of others (this is developed further in the case studies explored in Chapter 5). The social mobility highlighted here is the collective ownership of the physical activity sessions.

> "*The familiarity of those who are going to be at the sessions is good… it is good because it's ours" (*PV3 - Sandwell)
>
> *"... People, they want to get to know their neighbours, or people that they actually share a street with or use the community centre"*. (PV2 - Dudley)

Other forms of capital were acquired from the engagement in this intervention. The possession of any form of capital can reinforce the capacity to acquire another form of capital (Bourdieu, 1986). An example of this was economic capital that was developed as a result of employment following volunteering experience. As previously discussed the aims and motivations for some of the BCiM volunteers was to acquire experience to facilitate employment opportunities. In follow up discussions, it was highlighted that a number of volunteers had moved on to employment in the sport and exercise industry following volunteering in this programme.

The acquisition of bridging social capital was evident in those that had used this experience to assist in gaining employment and further developing social networks, human capital and developing the economic resources of these individuals. However this was in keeping with the employment agenda of volunteering, in that engagement in the process, ensured valuable experiences were gained to enhance employability in the sport and physical activity milieu. This somewhat moves away from the bonding social capital that is fundamentally at the source of this project. Through such employment it is suggested that these volunteers were able to negotiate the development of habitus. However, this somewhat reinforced the un-sustainable, episodic and instrumental nature of employability agenda identified a plethora of academics (Ellis Payne, et al, 2013; Nichols, 2013;2018; Rochester 2018) (discussed in Section 2.18)

Sustained sport volunteering has (sometimes by default) focused on the middle class leisure experience (Dean, 2016; Rochester, et al, 2010; Kay and Bradbury, 2009). However, drawing on the volunteering experiences of youths from disadvantaged communities, Bradford, Hills and Johnston (2016) suggest those from working classes are less likely to sustain their involvement in community sport and more likely to engage in episodic volunteering.

Further social mobility was identified in a discussion with V4. It was highlighted by this volunteer that the BCiM had given them the opportunity to attend a conference with public health and sport development practitioners.

> *"And then one of the first weeks (name) invited me to go to the obesity conference, something to do with people who struggle with their weight and weight management in Wolverhampton. I think it was a conference at the racecourse… I'd also met some of the people from the Black Country consortium and because it was my first event that I went to, (name) was really*

impressed with how I had interacted with people and getting involved". (V4 - Dudley and Wolverhampton East)

Following engagement in the volunteering process, Volunteer 4 obtained employment in the borough of Dudley, with a healthy eating and physical activity intervention. Delivering advice and support to communities regarding the adoption of healthy behaviours.

7.8 Barriers

It was highlighted by volunteers of the BCiM, that they had experienced some barriers when engaging in the volunteering process. The following section will identify the barriers that impacted the volunteer experience. These include educational inequalities, cultural barriers and physical environmental barriers. There has been a plethora of research that has examined barriers to community engagement and volunteering. Studies have revealed that the volunteering inequalities typically mirror the social inequalities found in the traditional labour market. Such inequalities are based on education, social class, gender, race or ethnicity (Grizzle, 2015; Johnson, *et al*, 1998; Bronnesen, 2018). It is suggested that disadvantaged social groups do not experience or participate on equal terms within the volunteerism domain.

The results of this research support previous studies and develop upon the experiences of BCiM volunteers with regards to the barriers and social inequalities experienced.

7.8.1 Educational Inequalities

It was highlighted in prior insight that the Black Country area experience significant educational inequalities alongside health and socio-economic inequalities. Although

aiming to increase capital, social barriers such as educational inequalities posed as a challenge to some of the volunteers. It was highlighted by volunteer 2;

> *"I need to pass that (exercise to music), I did all the other tests of pass that and I did all the coursework, I did like the coursework I've done all of that and that is all past. But I did take the anatomy and the nutrition, I've done it once and I didn't pass it so I've got to do the retake again. But often this before, when I first started with the Black Country in motion I had to retake the exercise to music, I find that really difficult*". (V2 - Wolverhampton East)

These challenges, in the context of the courses attended, was further experienced by V11, V5 and V3 who had discussed the academic and learning challenges encountered;

> *"...There's a lot of information sometimes like there's a lot of leaflets on different things. The stuff on the anatomy is a bit… yeah that's been the challenge for me, remembering stuff and being able to seem knowledgeable, because obviously if I'm going for this job I need to be seen knowing what I'm doing because if I'm uming and r-ing all the time they are going to be like he doesn't know what he is on about"* (V11 - Dudley)

> *"...because I hated school, I actually was really nervous about having to sit down and do the theory side of the course. And I just sat then I was really really nervous for a couple of days beforehand thinking "oh God what if we have to do a test".* (V5 - Dudley and Sandwell)

> *"I was worried about what they are going to want us to do on the course not just the sport stuff but if they want us to do loads of writing and stuff. I'm dyslexic and the thought of having to do loads of writing and reading worries me because I probably won't be able to do it"*. (V3 - Walsall)

When discussing barriers to volunteering, it was highlighted that the physical activity courses were educationally challenging for some of the volunteers attending. It was highlighted in an informal discussion, with a disengaged volunteer from a Walsall hub that they were unable to complete the training course they had been allocated due to the complexities of the course contents. The specific course was a Level 2 qualification (an equivalent to UK A level qualifications) and draws upon the anatomy and physiology of the human body. As a consequence to this, the volunteer had disengaged from the programme.

7.8.2 Physical Environmental Barriers

It was highlighted by volunteers that at times the physical environment in which they had delivered physical activity, as part of this intervention posed as a barrier. This was subsequent to the socio-economic deprivation experienced within these communities. Participant to volunteer 1 had identified the environmental barriers that were encountered in her community. She states;

> *"We had prayed for the Washington Arms pub, because people used to do drugs and bad stuff in there, they had prayed for the bookies to be gone, and that has gone it close down. And they prayed for the community centre, that the community centre it would be a place to go because at the time there was stuff going on at the community centre that shouldn't have been happening as well and it had stopped and become a community building."* (PV1 - Dudley)

The anti-social behaviour that affected these communities were highlighted by volunteers 3 and 9. This behaviour had subsequently resulted the disengagement of community members and the not attendance of community centres.

> *"To be fair there was a bit of trouble from some of the local older lads at the time I started….drugs and stuff like that…, and it all linked with the kids that went to the youth club at the centre. At the time the police were involved and between them and the people from the estate they wanted to close it down so I started helping out"* (V9 - Walsall)

> *"It wasn't too long ago that this place was proper overrun with bad kids from the estate, there were only a small group of them but there was just loads of trouble down here….they were constantly causing trouble, there was even a police hut thing up on the field over there… it was a place you kind of avoided but it was through the enterprise that they sorted out this building and we were able to start up different businesses"* (V3 - Walsall)

> *"There was trouble down this way a few months back where the police come down cos of the fighting and stuff and we had a couple from a different area come down, one of them was here with their cousin I think and I was expecting it to go off but it day [didn't]. It was really good so yea, I suppose that would be a barrier being worried about that. I know some lads who wouldn't have come and done this here cos of the trouble like. It's got a bit of a bad rep (laughs) with the kids that come here and the police are always around these ends"*. (V7 - Walsall)

7.9 Beyond the BCiM

Identifying the effectiveness of the BCiM and its impact on the community volunteer. The researcher examined further delivery of physical activity as a consequence to engaging in the programme. It is suggested that these acts were essentially an extension of social capital.

In a discussion regarding the sustainability of physical activity post BCiM, V1 had reported that she had secured funding from the YMCA to continue delivery of physical activity in her community and extend this to deliver post-natal exercise. She states;

> *"We had a 6 week period where the YMCA came in to the temple and did a healthy intervention with the elders. Since then I have been lucky enough to get some help from friends at SLT and (name - activator) to go through the funding stuff and it looks like they will be coming to the temple to do some more weight management and fitness work with other temples similar to ours"* (V1 - Sandwell)

When discussing continuity of physical activity sessions in the Castle and Priory community, PV2 had begun to discuss extending her physical activity delivery further. It was discussed that the volunteer could facilitate this provision with her local church group. She goes on to say;

- *"I know I can do that and then I could do it there, you say for me it is down to the politics and I don't get involved in any of that round here and I never have done even when I was a kid.*" (PV2 - Dudley)

- *"I have upped my game now. It has turned everything around it really has. I'm really positive now and I'm starting one up at the school…. So I went to a lady called (name) at the school, and she said she would take it to the governess meeting, and it went from there. Afterwards I met with the after school mentor, and we are starting on the 16th November… There 20 parents apparently so if they turn up I will be well chuffed"*. (PV4 - Sandwell)

Whereas participant to volunteer 4 had highlighted, that following differences within her social group she had subsequently began another volunteering role within a school which resulted in her gaining employment.

7.11 Summary

This chapter has examined the narrative experiences of those who volunteered in the BCiM project. This volunteer group had facilitated the delivery of physical activity and were therefore an important aspect of this project. In this chapter the motivations of volunteers are explored, identifying a dichotomous divide between those who had community centric motives and those who had instrumental motives for engagement. This chapter additionally examines the effectiveness of this intervention in the development and acquisition of social capital, thus identifying social mobility. The barriers encountered by this group of community volunteers was identified, further outlining the effects of socio-economic disadvantage within these communities.

The following chapter (Chapter 8) will discuss the findings from the previous results chapters (Chapter 5, Chapter 6 and Chapter 7), developing the findings of the BCiM and discussing the issues that have risen. Further discussion will develop a comparison of these results with published academic works and identify the potential adverse effects of the project. Chapter 8 will additionally identify the methodological strengths and weaknesses of this research and recommendations for further research.

Chapter 8 - Discussion and Conclusion

8.1 Chapter Overview

The Black Country in Motion was a community based intervention aimed at increasing physical activity through the facilitation of community sport and exercise. This programme differed from popular provision as it placed emphasis upon the training and delivery of sport and exercise through volunteerism. The objectives of the research (summarised in Box 8.1) were to evaluate the effectiveness of this community led project in its ability to increase physical activity and develop social capital. The previous Chapters 5, Chapter 6 and Chapter 7 offer the findings of both the outcomes and processes of this programme.

Box 8.1 Research Objectives

Research Objectives
• To evaluate the effectiveness of the BCiM project • Identify the process of behaviour change from sedentary to active • Examine the impact of the BCiM, community and physical activity upon quality of life and well being • Explore barriers and challenges to physical activity and how these may have been overcome • Explore community volunteering, the impact of the project and the volunteers impact upon exercise adherence • Evaluate the sustainability of the BCiM

From examining previous chapters, it appears there are a number of issues raised that merit further discussion. Specifically if further research and a broader implementation of such interventions are to be continued. These include the methods in which physical activity is measured, the recruitment of this socioeconomic group and the retention of participants. Further discussion will develop a comparison of the main outcomes with

published work, identify the potential adverse effects, develop the methodological strengths and weaknesses and to suggest recommendations for future research. Therefore Section I of this chapter will discuss the findings from Chapters 5, 6 and 7 to determine the effectiveness of this community led intervention. Examining its effectiveness in increasing physical activity and developing social capital amongst the socioeconomically, disadvantaged communities in the Black Country. Section II will provide a conclusion to this study.

Section I – Discussion

The following section will discuss the findings of this research. This section will be separated into two sub-sections, firstly discussing the overall evaluation of the BCiM project. Secondly examining if a community centric intervention can engage the inactive in a postmodern society.

8.2 Evaluating the effectiveness of the Black Country in Motion

A primary research aim was to evaluate the effectiveness of the BCiM as a community centric project aimed to increase physical activity. Drawing on the results from Chapters 5, 6 and 7, it is highlighted that there was significant challenges to engaging the inactive. Following the examination of findings it was evident that these challenges were; the significant difficulty with recruitment, high drop-out rates and engagement with the research process.

Recruitment and retention had a significant impact upon the project in that due to the limited engagement in activity sessions, this often resulted in disengagement and the unsustainability of the session. Further challenges to recruitment essentially affected

the research process, as changes to the participant profile altered due to pressures from funders. This meant that the demographics of the participants altered and more active participants, living outside of the BCiM zone were recruited.

The timing of recruitment was also instrumental in the success of recruiting participants. It was highlighted that there were significant barriers to recruitment and attendance during school holidays, supporting Hyton's (2015) suggestion that childcare within this demographic is often a barrier to participation in sport and exercise. To overcome this project activators provided family multi sports opportunities however these sessions had low attendance and were therefore unsustainable. This may be due to the timings of the sessions as they were delivered in the daytime and thus working hours.

Recruitment of participants for this intervention were based upon self-referring. Recruitment of participants via referral from health professionals, was a viable option due to the saturation of health interventions such as Health Trainers. However this approach was often linked with other partner funding. The findings that self-referral through social media as an effective recruitment strategy, contrasted research undertake by Raynor, Osterholt, Hart, Jelalian, Vivier and Wing (2009), who argue the effectiveness of active recruitment methods through referral. Using health professionals and organisations as a means of active recruitment, Raynor, *et al* (2009) suggest this approach is more effective and cost-effective in the recruitment of activity participants. However passive recruitment methods were better to retain participants as they tended to adhere to the exercise programme. Participants have often been through the processes of precontemplation, contemplation and preparation at this

point of engagement. It could be suggested that self-referral may indicate an intention to change (Prochaska, et al, 1992). The motivations of those who self-referred would differ from those who were referred (Mann, 2014). Therefore those that had attended a physical activity session as part of this intervention, had intention to change.

On this basis it is essential to discuss what influenced retention and disengagement. It was highlighted that as poor recruitment rates influenced the retention and sustainability of activity session. A brand awareness sub-study (See section 6.5.4) identified marketing attempts were a specific barriers to recruitment. However low recruitment rates may additionally reflect a possible reluctance for community members to partake in this initiative. Primarily, a lack of readiness to change may preclude engagement in this programme. Participants may feel they are judged for their inactivity when faced with a highly motivated volunteer and thus reluctant to engage.

Promoting inclusive access to sport in this socio-economic population is challenging for a number of reasons. Primary participants for this intervention were those who at times were disengaged from their communities and civically inactive. A significant challenge was to develop a sport intervention which motivates and includes those who are not civically engaged to engage with local community provision. Therefore not only was this intervention aiming to increase physical activity it additionally had the challenge of overcoming social disengagement.

The results from this intervention are consistent with other community-based projects in which the attrition rate was high (Mann, *et al*, 2016). Examination of drop out and

disengagement in the programme reported those that had disengaged with the programme that exercise intensity, the informality of the programme and poor attendance rates were reasons for disengagement. It is suggested that although this model enables social cohesion and the development of social capital, having a highly motivated and inexperienced volunteers, delivering physical activity could essentially discourage participation.

Delivering an appropriate level of intensity for exercise, requires experience and differentiation skills, which a community volunteer (unless having prior experience) would find difficulty delivering. It appeared differentiating intensities of physical activity, to ensure accessible to all fitness levels and abilities, was a challenging task. Project volunteers had attended a level one/two physical activity or sports qualification, which provided them with a provisional skill set. It was discussed that once volunteers had delivered this programme, physical activity session became monotonous and lacked change. Subsequently affecting retention and sustainability of the activity session.

Low attendance of activities subsequently discouraged participants, and in some instances volunteer return. It was additionally highlighted that activities such as walking football were impeded when attendance was low, due to the nature of the activity. This resulted in a cycle in which participant disengagement resulted in low attendance and subsequently low attendance therefore influenced further engagement. Furthermore, drawing on participant data exploring project expectations, it could be suggested that the fulfilment of expectations for participants was not met and therefore participants experienced a sense of disappointment. Those that had attended sessions had referred to the delivery of activity by the Wolves Community

Trust, and therefore expected a more established activity session, delivered by football and/or sports coaches.

8.3 Measuring Inactivity and the Monitoring and Evaluation Process

A significant point of discussion should be the process in which the project was monitored. Results indicated that due to the limitations in follow up data, determination of significant physical activity increases were unsuccessful (see table 5.2). However, the results indicate that those who engaged in this research process, increased physical activity. Taking into account those participants who had reported inactivity at baseline, the increase in activity within those that adhered was large. However, there is greater concern raised in this evaluation, regarding the significant number of disengaged participants. It is suggested that the methods used to measure increases in physical activity could have contributed to the high attrition rate.

When attempting sustained recruitment, adherence and engagement of this demographic group in attending the intervention and monitoring and evaluation process. It is suggested that incentivising could have been used for participants in the completion of the monitoring and evaluation process. Such incentivised approaches were used by another Get Healthy, Get Active intervention, Active Norwich. Participants who completed the monitoring and evaluation process were rewarded £20 shopping vouchers once all follow up IPAQs were completed. In gathering interview data from disengaged participants from this intervention, incentives were used due to the difficulties in recruiting this group of individuals. This was successful and appropriate data was collected. Therefore it is suggested that using incentives in the process of monitoring and evaluating with this demographic group could increase

research engagement. As a self reporting measure of physical activity, the IPAQ provided a dichotomous measure of (in)activity, however it further posed as a significant barrier to the research process. As discussed in Chapter 6, participant follow up was limited, therefore it is suggested that this process of measuring activity was not suitable for this demographic group.

A primary concern when using this tool was how participants interpret descriptions of physical activity, when many participants were inactive for long periods prior to this intervention. It is suggested that if an individual is inactive and not participated in sports or physical activity, they would have difficulty in identifying the varying intensities posed. Furthermore, the ambiguous terms relating to intensity of activity, and the incorporation of leisure time, domestic activity (related to housework) and employment related activity, may influence the interpretation and understanding of activity. For example, the plausibility of participants who spend extensive periods of time sedentary, then suggest they spend long periods of time engaged in vigorous activity (Linke, *et al*, 2011). In contrast those who have manual jobs as an occupation, it is difficult to assess the physical activity levels. Furthermore, an individual's ability to interpret ones activity intensity may pose a challenge, for some walking upstairs may constitute intense physical activity.

Analysis of the data indicates that despite increasing physical activity, participants were below the intensity recommended. It is argued that it is the language used to assess physical activity that could have influenced the results of those completing the IPAQ as part of the BCiM. Rzewnicki, *et al,* (2003) identify disparities in participant understanding terminology, having had issued the IPAQ to track intensity and duration

of activity, followed by questioning participants on their understanding of terminology. It was determined in this study that participants who did not exercise encountered difficulties in understanding the correlations between breathing intensities and intensity. Therefore it could be suggested that many participants may have either overestimated or underestimated the intensity and duration they reported. Beedie, *et al,* (2015) argue that when measuring physical activity researchers should not rely on self-reported physical activity, which may be impeded by memory recall.

Alternatively it is possible that completing extensive paperwork and questionnaire was seen as an additional burden to this demographic group. Drawing on insight data developed prior to the implementation of the BCiM it was identified that many of those that resided in the target areas of the Black Country, experienced educational inequalities. Those participants that were from areas of significant educational inequality, not in education nor employment, could perceive completing a paper and pen task as representing a challenge. This was supported by a volunteer, who confirmed that some of the residents who had attended an initial boxing session were illiterate. Therefore the task of completing the monitoring and evaluation process in this instance would not only be challenging and could further be seen as a source of embarrassment. Payne (2006) suggests that people with low literacy skills to avoid situations where such skills are exposed. Consequently it is possible further engagement in the research process could have affected further attendance in the programme. Supporting Payne (2006) it was reported by participants and volunteers in an interview that the processes of paperwork, involved in monitoring and evaluating such intervention, acts as a barrier. It was reported that there are significant educational inequalities and in some instances it was suggested that participants who

had attended activity sessions experienced illiteracy. Subsequently refusing to complete paperwork or misunderstanding the questions posed. During analysis it was felt essential to identify the socio-demographics differences between those who adhered to the programme and those that did not. It was indicated in the IPAQ analysis that those who were in education and in employment were likely to remain in the programme and the attrition rates in those who were unemployed or NEET were high. This is consistent with other community based research studies in that those participants in education or employment were likely to remain in the programme (Mann, *et al*, 2016; Beedie, *et al*, 2014).

There are several ways in which the data could be interpreted and all warrant further explanation. It was demonstrated an effect, however the mechanisms underlying this effect were unknown. In terms of the explanation for disengagement of participants in the programme, and the high attrition rates, was further examined using qualitative data. However regarding the higher adherence of those out of education or employment, it could be suggested that by being in education or employment created this opportunity for engaging in this intervention, that is those who adhered attended activities after work or class. Furthermore with current trends in the sport and exercise sector favouring objective, criterion-related measures of physical activity, devices such as accelerometers, Fitbits and smartphones are becoming more easily accessible. Providing a quick and accurate way in which data is collected and kept (Shephard, 2017).

8.4 Community Centric Intervention

Community and civic engagement was an essential element to the BCiM intervention. As a community intervention this project aimed to use community and the community volunteer to engage those who are inactive. As previously discussed, community sport and physical activity has been used as a tool for social and community engagement. However the notion of community has been a contested site by scholars, regardless of community be a foci of policy makers and funders.

The development of community and social support was examined in this intervention through the social dynamics of the communities explored. Those that exercised together demonstrated increased social bonds, providing support to exercise adherence when needed. However such social bonds were fragile and subject to stresses. It was highlighted that relationships within these community groups were subsequently influenced these relationships, and at times engagement in the programme. Supporting Blackshaw's (2016) description of the 'warm and welcoming' or 'unhospitable and destructive' community, it is argued that such social bonds may exclude or deter participation. Such community relationships appear to be circumstantial and dependent upon the social dynamics and motivations of those who partake. Idealistic notions of social bonding being a basis for community provision does not account for challenging social dynamics or the fragility of community. Supporting Casey, Eime, Ball and Payne (2011) notions, working class culture appearing to be more fragile than the ideals of community. Social bonds can and will be broken as social hierarchy navigates and changes through societal structures. With community being an inherent foci in current sport policy, it is essential that

commissioners of physical activity pay due regard for the influence in which social bonds and capital has upon the way in which community is enacted in such settings.

Further social support may be dependent upon community cohesion and the degree in which an individual is engaged with one's community. As discussed in the UK Active current strategy, the development of community infrastructure, all aspects of community are used to incorporate physical activity, is essential to decreasing inactivity. It is proposed that by bringing physical activity into the workplace, schools and the community as a whole. Through the development of infrastructure, physical activity norms could develop, however it is evident from this research, the challenges faced when delivering community centric provision. It is essential that policy makers and practitioners develop a critical consciousness which recognises the social and structural constraints within communities. Essentially moving away from the idealised visions of community, which is based on the notion of a highly motivated, civically engaging and homogenous image of community. It is argued that the pre-existing community continues to be depicted and is unrealistic in the modern, globalised and individualised society, particularly within areas of deprivation where cultural diversity is prevalent.

8.2 The Realities of Community Intervention

In terms of examining community's ability to engage those who are inactive, to participate in community exercise and sport. The results of this research relate to the expectations of the study and reviewed literature. The limited engagement and challenges in retention demonstrate that this type of community intervention, delivered by the community volunteer, is not suitable for the engagement of the inactive.

It is suggested that community engagement may further be reason for poor retention rates, as described by those interviewed the notion of community could pose as a deterrent. It was reported that due to prior social conflicts that some members of a community would not engage with such interventions. Changes in participation has been examined by Borgers, *et al,* (2016) who use an institutional change theory as a lens to explicate current changing trends in sport and physical activity. Borgers, *et al*, suggests a shift in the direction of sport and exercise direction, arguing that participation is seen as a choice or an expression of an individual's attitudes or motives. For example process such as individualisation or modernisation emphasise increased autonomy and independence.

When applying Bauman's concepts of community, it is suggested that the communities studied fixed and/or stationary entities. Social dynamics can alter and change relationships, social interactions and perceptions of community. In the current times of austerity, neo-liberalist policy has applied increased focus on community provision and volunteerism. However it is evident from this study that the community volunteers of the BCiM and communities akin, do not have the resources or cultural capital to provide sustainable provision in this milieu. Furthermore, with a paradigm shift away from the traditional altruistic approaches to volunteerism, towards the current employment agenda. It is evident that sustainable volunteering is increasingly challenging.

8.6 Barriers and Challenges to Physical Activity

Barriers to physical activity were explored in both those that had adhered to the programme and those that had disengaged. It was reported that prior to programme recruitment, the barriers experienced were work / family commitments, financial constraints and accessibility. This is supportive of literature and as identified by Lynch, *et al*, (1997), it is suggested that exercise and physical activity is not a priority for those experiencing socioeconomic disadvantage. It was reported that due to family, work and other commitments, physical activity was not seen as a priority. When examining current austerity trends, those within the lower socioeconomic quartiles are currently experiencing significant poverty. It is argued by the Trussell Trust (2015) that the number of food banks in areas of high socioeconomic deprivation have increased from 29 in 2010 to 251 in 2014. Farrell, Hollinsworth, Propper and Shields (2013), suggest there is a clear association with increases in physical activity with important dimensions of socioeconomic position that in times of austerity. Furthermore supporting the notion that in times of austerity, inequalities in health and well-being increase. It is suggest that physical activity levels drop for those residing in communities experiencing socioeconomic deprivation, and in a bid to tackle this social inequality, UK active's (2018) strategic policy aims to overcome inactivity. Drawing on insight and findings to support this policy, it has been identify that there is a significant class divide between those who exercise. It is suggested that early intervention with children can create a healthy attitude towards physical activity and sport.

8.7 Volunteerism and Social Capital

When examining current community sport and physical activity policy, rhetoric pertaining to volunteerism, social action and civic engagement are prominent. It should

however be considered that social action implies the existence of prevailing social groups, which in current insular societies may poses as a barrier (Werhane, 1993). It appears the tacit, over-simplicity of community as a policy ideal, underestimates the challenges in community engagement. With community and the prosocial act of volunteerism being central to this intervention, it is essential to highlight the theoretical concepts of community. The ideology of community is fraught with contention and criticised for being exclusionary. Bauman (2001) suggests a sense of community is socially constructed and effective in content, being no more than a feeling. Anderson (1991) and Krieger (2000) explore the concept of imagined communities, suggesting emotively imagined communities symbols to those it includes and those excluded. Regardless of these notions and barriers in modern day communities, community remains the basis of social intervention and development in areas of socioeconomic disadvantage.

This is further apparent when examining the shifts in volunteering paradigms, with literature highlighting the reduction of altruistic volunteering and an increase in individualised acts of volunteering. In a recent examination of volunteering trends Rochester (2017) identifies that the nature of community has taken a major shift. He suggests that although physically people are in closer proximity within cities, they are becoming more *"isolated socially as a result of increased mobility*" (p.5). Nichols (2017) suggests the change from a modernist society, in which social structures such as occupation, sex and ethnicity determined leisure, to a post-modern society, which such constructs are replaced with more fluid identities in which experiences are more individual than collective. There appeared to be dichotomous divide between those that had more prosocial motives and those who used the programme instrumentally.

However it is argued that these prosocial motives were instrumental in the fact that the volunteers had used this opportunity to increase attendance and use of the community facilities used.

The impact of the BCiM volunteer was varied and in some instances, limited knowledge and inexperience affected attrition and retention rates. It is suggested that an inability to differentiate intensity, task and activity, impeded the delivery of the activity and subsequent sustainability.

8.8 Sustainability

Due to the constraints of using the predetermined measures of the IPAQ, the lack of control group and the challenges to engagement in the research process, determining effectiveness was difficult. However, drawing on the data retrieved, those that engaged in all aspects of the intervention proved the BCiM to be effective for those who had adhered to the intervention. However this was often subject to the recruitment and retention of others and therefore the sustainability of the activity session attended. Further constraints in contractual targets and KPI's influenced methods of recruitment, and as a result those who were active (completing more than >2 x 30 mins/ week of moderate exercise) were recruited to the programme. Examining the effectiveness of the BCiM volunteer, it was identified those that had transitioned from participant to volunteer had demonstrated an increased bonding social capital. Social cohesion and bonding between the volunteer and those that had attended the sessions was increased and motivations to seek additional physical activity was evident.

Furthermore it is suggested that those who became volunteers following participation, had experienced an increased sense of self. Thus improving self-esteem and self-efficacy, positive changes to physical self, experiences of mastery and the development of comprehensive knowledge or skill in a particular activity or sport, overcoming self-imposed limits and subsequent empowerment. However when examining the BCiM volunteer and current changes in the community volunteer, it could be suggested that this, in itself is not a sustainable model. Therefore it is recommended that to ensure sustainability, volunteers are supported further in developing fundamental skills in differentiation, community engagement and in delivering provision to inactive participants. However it is further suggested that this is done in a manner that is accessible to the educational abilities of this demographic groups, following it being identified that volunteers found difficulty due to educational inequalities.

8.9 Methodological Strengths of this Study

The primary strengths of this study is that it used a mixed methods approach, enabling a detailed exploration in to effectiveness of BCiM in changing health behaviours and the processes of change (Chapter 5); a comprehensive process evaluation to examine the fidelity of the delivery of the intervention (Chapter 6); and an identification of volunteerism in this context and the BCiM volunteering experience (Chapter 7). The process evaluation of the BCiM has been comprehensive and consistent with the evaluative framework developed by Linnan and Steckler (2002). The quantitative methods adopted for this evaluation included socio-demographic and IPAQ data, however these methods were predetermined. This was to identify the demographics of the participant group and interval measurements of physical activity at varying times

and intensities over a 12 month period. The qualitative research methods have detailed the processes of change, influential factors to sustained adherence and the prerequisites for this participant to engage in community provision. Through the development of case studies, participant experiences of this community intervention, have examined the effectiveness of community led intervention. Further qualitative research methods included an examination of the community physical activity volunteers (Chapter 7).

8.10 Primary Limitations of the Study

There were a number primary limitations of the study these included; the lack of a control group; the engagement of participants with the IPAQ; the pressure of targets and the timing of follow up data measures.

It was considered by the funding body when designing this study that a control group evaluation would be included. The proposed control group was inactive individuals attending local leisure centres within the BCiM hubs. However those that would have participated in this control group would have had different motivations than that of the intervention group. As previously discussed, using a self-reporting, recall measure to examine increases in physical activity, often provides an inaccurate measure and descriptions of intensity and duration are not standardised and often interpreted by the individual.

To gauge a true understanding of programme effectiveness it was considered to complete a post intervention analysis, to determine if those who were inactive prior to the intervention had continued exercising and met the recommended levels of physical

activity each week. However due to time limitations and the subsequent disengagement of participants in the research process this was not plausible.

8.11 Considerations for Future Community Intervention

The BCiM programme was a promising intervention which aimed to engage communities through the implementation of community volunteers to deliver physical activity. However due to the constraints of time and KPI's, engagement of those who were civically disengaged in the target population was limited. Further exploration into the recruitment of those who are civically disengaged is required. As is exploration using alternative methods of monitoring and evaluating physical activity intervention. To accurately measure the effectiveness of community intervention, the use of RCT would further strengthen this measure.

Section II – Conclusion

8.12 Conclusion

The evaluation of the BCiM has highlighted significant challenges to community sport and physical activity provision. Primarily it has highlighted the requirement for sport and physical activity policy makers and practitioners to develop a critical consciousness. When developing policy, consideration must be given towards social processes and the structural constraints of community-led intervention. It is evident that community intervention is designed and developed based upon the notion of highly motivated and civically engaged individuals and homogenous images of unified communities. All of which are reflective of an orthodox and traditional sociological

motion of community, not of the individualistic fluid community found in a postmodern society.

Thus there continues to be a challenge when engaging hard to reach communities. The assumption that communities are homogenous is detrimental as communities are not pre-existing and social bonds are at times fragile. When examining community-led intervention from a sociological perspective, theory argues that a postmodern community is fluid and not static. As Bauman (2005) states, the liquid modern yearning for togetherness, see that if one community is abandoned, we invariably join another. If we are unable to maintain one's individualism, we seek out another community that is accepting.

The communities of the Black Country are culturally diverse, with multiple communities, experiencing socioeconomic, health and educational disadvantage, such communities at times exclude and it is apparent that one size does not fit all. When considering diminishing community engagement and the dynamic, multicultural societies of modern Britain, it is suggested that current policy is somewhat dated. Although policy makers are aware of the requirements needed for community cohesion in tackling the current health crisis, there are significant challenges when implementing strategies to ensure sustainable provision.

The research has highlighted the challenges to the recruitment of hard to reach communities, the process of monitoring and evaluation and community intervention sustainability. It has been discussed the challenges encountered in recruiting this

demographic group. And given the limited time periods and the pressures of KPI's for the project facilitators, this impacted the efficacy of the programme.

The social complexities of volunteerism are demonstrated in this study. In which it identifies that interventions, based on pro-social motives are somewhat unsustainable due to change paradigms of volunteering. Prosocial volunteering is changing, in that episodic voluntary action is increasing (reducing sustainability and long term provision) and that in times of austerity, prosocial action decreases. The development of bonding social capital were identified in this study, this resulted in strengthening of previous or existing community of bonds. However this was fragile and subject to ever changing social dynamics.

In regards to research contributions, this study aimed to examine the premise of community as a basis for engagement. As discussed through the examination of literature in Chapter 2, sport and exercise intervention has been used as a medium for community development. However the BCiM used a community centric approach in that community activity was delivered by community volunteers, with the aim to develop sustainable provision. Therefore, this research aimed to examine if a postmodern society can community engage the inactive in the hard to reach areas of the Black Country. Through the examination of literature, alongside quantitative and qualitative measures and a process evaluation, it is apparent that community is not a medium for the engagement of inactive people in this milieu.

Overall measuring the effectiveness of this intervention was a challenge due to the limitations and constraints of pre-determined measures. It has been determined

through a review of literature and the implementation of the IPAQ that this measure is somewhat dated and interpretation inhibits an objective measure of activity.

The Black Country in Motion was a promising community-led intervention which had the potential to impact the communities of the Black Country in developing exercise provision for the inactive. This impact could be seen in the development of social capital for volunteers and those that had adhered to the project. However, this project did not take into account the fluidity of communities and its individuals, including the barriers that community can possess

Further development into the barriers of recruitment and retention require further examination. Alongside the evaluation of community-led intervention using an appropriate randomised control trial.

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Appendix I – Black Country BeActive Monitoring and Evaluation Document

Black Country Get Healthy, Get into Sport Research Programme: Black Country in Motion

2013-2016

Monitoring & Evaluation Plan

Version	Modifications	Author	Date
0.1	Initial Draft	Suzanne Gardner	22/05/2013
0.2	Second Draft	Suzanne Gardner	21/6/2013

0.3	Third Draft	Suzanne Gardner	
0.4	Fourth Draft	Suzanne Gardner	9/5/2014

1.0 Introduction

The Black Country in Motion (BCiM) project takes an asset based, person centred approach to getting inactive people into sport. The project targets 8 Health Sport hubs (geographical hotspots detailed in figure 1) across the Black Country where data informs us that there is a significant opportunity to decrease health inequalities and increase participation. The project will grow the opportunities for informal and formal sport by engaging and training community members, clubs and organisations to deliver and sustain inactive people into sport.

Figure 1: The Black Country in Motion Health Sport Hubs

Locality	Health Sport Hub
Dudley	• Castle and Priory • Netherton and Woodside.
Sandwell	• Smethwick • Tipton Green
Walsall	• Blakenall • Bentley and Darlaston North
Wolverhampton	• East Park • Bilston East

2 Full Time Activators have been recruited through Wolves Community Trust to lead the delivery of the project in local areas working with community organisations and leaders. The main function of the roles is to increase participation in sport amongst the communities being targeted, taking a community engagement and development approach. The post-holders will in turn recruit, train and support 80 volunteers over three years from the communities to deliver a range of sport and activity classes to meet local needs.

The project will deliver the following developments and improvements to sports delivery:

- Better pathways to sporting activity
- Better 1st contact experiences for the community by supporting existing deliverers to meet the needs of inactive people
- Better delivery of formal and informal sport to meet the needs of the inactive
- Better marketing
- Better targeting of activities
- Better community engagement
- Increased opportunities to lever long term investment of resources into sport from public, private and the voluntary sector.
- Improved collaboration, co-ordination and co-operation for an agreed Black Country approach to a specific physical activity and sport programme
- Improved and standardised measurements for sport programmes

The project has recently received a grant from Sport England's "Get Healthy, Get into Sport" fund and forms part of a PhD Research study (in partnership with the University of Wolverhampton) that will ***add to the evidence base regarding how sport can effectively support inactive people to get active.***

The PhD research study will test the following research question: "Taking into account impact and cost effectiveness does a person centred, community led, geographically targeted

intervention increase the participation in sport of inactive people in areas of high health inequalities and low participation compared to other "universal" sports interventions" *Please note, this may be re-worded during the final methodology development.*

Total cost for the project is £748,910, with £484,910 awarded from Sport England and £264,000 partnership funding (as either cash or in-kind). The delivery of the project will take place between April 2013 and March 2016.

This document details the evaluation plan for the programme and will provide a guide to this for all partners and stakeholders.

2.0 Aims of the Evaluation and Research for the programme

The aims of the evaluation and the research programme are to:

1. Add to the evidence base for sports ability to get inactive people into sport
2. Provide evidence of the £:£ investment:benefit ratio for universal and targeted programmes through a social return on investment study including the development of indicative costs of developing the workforce needed to meet targets linked to increasing participation
3. The study will provide an opportunity to test the forthcoming Health Economic Assessment Tool (HEAT) for sport within its methodology, alongside testing how best to embed the Standard Evaluation Framework for Physical Activity (SEF) within sporting programmes in the Black Country.
4. Link to existing projects including exercise referral pathways and the findings from the study will support Sport England, National Governing Bodies of Sport (NGBs), County Sports Partnerships (CSPs), Local Authorities and other local partners to determine the most effective mechanisms for increasing participation in sport.
5. To provide evidence on the "influencers" which encourage an individual's and communities behaviour change towards participating in sport and test this against both Sport England Market Segmentation, Active People and other national data sources.

3.0 The contracted Outcomes and Outputs for the programme

The agreed outcomes and outputs for the programme are as follows:

Outcomes

- Increased percentage of people achieving 1 x 30 minutes of sport per week (measured by the Active People Survey)
- Decreased percentage of people achieving 0 x 30 minutes of sport per week (measured by the Active People Survey)
- Increased percentage of people achieving 1 x 30 minutes of physical activity per week (measured by the Active People Survey, linked to Public Health Outcomes Framework measurements)
- Decreased percentage of people achieving 0 x 30 minutes of physical activity per week (measured by the Active People Survey, linked to the Public Health Outcomes Framework measurements)
- Increased Economic development activity through employment for the activators and employment opportunities for volunteers as the programme develops through self-employment and employment
- Increased social capital and strengthened community cohesion

- Increased knowledge, skills and qualifications through the training part of the programme
- Improved health and well-being (self-reported improvements in health, mental well-being etc. It is not intended to undertake physiological measurements as part of the research programme)
- Contribute to improved support for vulnerable/struggling families (through support to 14+ years)
- Increased evidence for future delivery mechanisms for Sport in the Black Country and increased advocacy resources for use with Health and Well Being Boards and other Commissioning Boards.

Outputs

- 3,000 people who are inactive moving to being active in at least 1 x 30 minutes of sport per week as a result of the programme
- 8 health sport hubs developed
- 3,000 people engaged in the programme out of the potential 12,135 missing people in the 21 locations detailed in the application. Once the 8 locations have been determined with local partners it is likely that the programme will be targeting at least 50% of the missing people in these areas.
- 70% retained @ 3 month period: 2,100 people
- 60% sustained @ 6 month period: 1,800 people
- 50% sustained @ 12 month 1,500 people
- 80 community members trained to deliver sessions through BCiM:
- At least 4,000 targeted activity hours delivered per year
- 130 clubs/organisations trained and mentored to support inactive people into sport
- **2 new Cradle to the Grave evidence base documents available for use with 3 documents available for national publication (including the initial document that has already been completed).*
- **2 Social Return On Investment (SROI) Reports (interim and final) documenting the investment:benefit ratio for universal and targeted programmes and the potential financial savings to the NHS and Clinical Commissioning Groups (CCG's) related to reductions in health inequalities.*
- **3 academic papers from the University published in relevant journals to support the academic dissemination of the findings*
- **Annual seminar targeting commissioners to raise awareness of the programmes emerging findings*

**Part of wider programme of commissioning aligned to the delivery of the programme and PhD research.*

These outcomes and outputs are included within the contract with Sport England.

4.0 Black Country in Motion Logic Model

The logic model (shown overleaf in figure 2) provides details of the primary and secondary outcomes for the programme, it is important to bear in mind that the programme itself has been developed as a research programme rather than a traditional sports development programme.

Figure 9: Black Country Get Healthy, Get into Sport and BCiM Research Logic Model

Rationale

The Black Country in Motion Programme looks to test the following research question: "Taking into account impact and cost effectiveness does a person centred, community led, geographically targeted intervention increase the participation in sport of inactive people in areas of high health inequalities and low participation compared to other "universal" sports interventions". It will take an asset based, person centred approach to developing 8 Health Sport Hubs where the opportunities for formal and informal sport will be grown by engaging and training community members, clubs and organisations to deliver and sustain inactive people into sport. This approach will be compared with the delivery of Leisure Facilities as a Universal programme to determine the effective elements of each approach and provide evidence for future delivery.

Inputs

2 F/T Equivalent Activator Posts

1 PhD Student post

Project Management and Support (provided by BCC Ltd)

Research Funding £69,795

Project Management £81,356

BCiM Delivery £319,760

Resources £18,000

SROI £25,000

Universal Programme: £TBC

Alignment to core programmes £125,000

Activities/Outputs

No. of people active at 1 x 30 as a result of programme: 3,000

No. of health sport hubs developed: 8

No. of people retained @ 3 month period: 2,100

No. of people sustained @ 6 month period: 1,800

No. of people sustained @ 12 month period: 1,500

No. of community members trained to deliver sessions: 80

No. of targeted activity hours delivered per year: 4,000

No. of clubs trained and mentored: 130

No. of Cradle to the Grave documents: 2

No. of SROI reports: 2

No of academic papers from University: 3

No. Of PhD Thesis: 1

No. of Student Dissertations: ……

No. seminars held to promote findings: 3

Primary Outcomes

Increased % of people achieving 1 x 30 minutes of sport (APS)

Decreased % of people achieving 0 x 30 minutes of sport (APS)

Increased % of people achieving > 1 x 30 minutes of physical activity per week (APS)

Increased knowledge, skills and qualifications for sport

Increased evidence and advocacy tools for future delivery for commissioners

Increased No. of Volunteers in Sport

Secondary Outcomes

Decreased anti-social behaviour

Improved health and well-being

Reduction in Weight (self-reported reductions)

Increased usage of leisure facilities

Increased secondary spend at leisure facilities

Increased social capital and strengthened community cohesion

Increased sports club membership within health sport hubs

Economic development through employment/self-employment

Improved support for vulnerable/struggling families (through support to 14+ years)

5.0 The alignment of the Evaluation and Research elements of the Programme

The evaluative elements of the programme and this plan have been designed to meet Sport England reporting requirements and is based upon the outputs for the programme and the essential criteria documented in the Standard Evaluation Framework for Physical Activity.

The evaluation information will include the following:

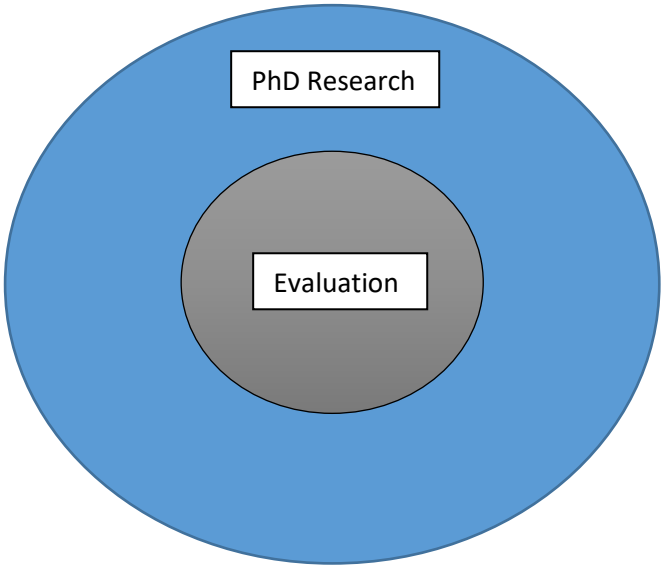
- Progress on meeting KPI's/Outputs
- 2 Social Return on Investment Evaluations
- Details regarding the Economic Impact of the Programme

The data collected for evaluative purposes will provide a rich source of information for the PhD research project with the Black Country in Motion Activators and PhD Student working in partnership to collate the raw data (as detailed in section 6.0 of this plan).

The research elements of the programme and this plan are expected to develop organically as data and insight is gained as the Black Country in Motion project evolves. Whilst the research question will remain largely the same as those detailed in section 1.0 the PhD Student will be at liberty to take the research off on appropriate tangents to develop their thesis and provide greater insight and evidence for Sport England and the programme partners.

The evaluation/research study will also provide an opportunity to test the forthcoming Health Economic Assessment Tool (HEAT) for sport within its methodology, alongside testing how best to embed the Standard Evaluation Framework for Physical Activity (SEF) within sporting programmes in the Black Country.

Figure 3: The alignment of the Evaluation and Research elements of the programme



6.0 An Individual's Journey through Black Country in Motion

Sport England's "Get Healthy Get Into Sport" projects are designed to target people who are currently inactive, this is categorised as "targeting people who do less than one session of 30 minutes of physical activity per week".

The methodology proposed by Sport England has been developed to:

- Identify inactive people (screening)
- Collect baseline data
- Collect follow up data
- Collect longer term data

The tools that have been selected for use are:

- The best available short validated physical activity questionnaire
- Recognises the absence of a validated sport measure, and proposes an evidence-based question, closely matched to the physical activity questionnaire

The proposed measures allow an estimate of total physical activity, as well as investigation of specific intensities (sport; vigorous; moderate) and bouts of 10 minutes+

All forms relating to the monitoring of the project can be found in appendices 1 – 9 of this plan. This includes consent forms, information sheets and validated tools. Sport England's recommended tool for screening and recruiting participants is the validated *Single Item Measure* (Appendix 3). This has been shown to be an effective tool to identify inactive individuals and is quick and easy to interpret by people with no specific training.

The response to this question is zero to seven days and the project should recruit those whose answer is zero. Projects may consider recruiting people who answer zero or one day, on the basis that self-report questionnaires often over-estimate physical activity and so this may still identify (relatively) inactive people. However, this reduces the possibility that you will be able to detect a shift in activity levels as a result of the project.

Recruitment data should be recorded (i.e. responses to the single item screening questionnaire from all people approached) as this is extremely important to show the process of recruitment, particularly the number of people that projects need to approach in order to find one inactive participant.

Baseline measures must be taken for all people enrolled into the programme. This must be completed before any sporting intervention has been carried out. This might be immediately (but not straight after) the first sport session, or it may be immediately after recruitment. The latter is probably the preferred option.

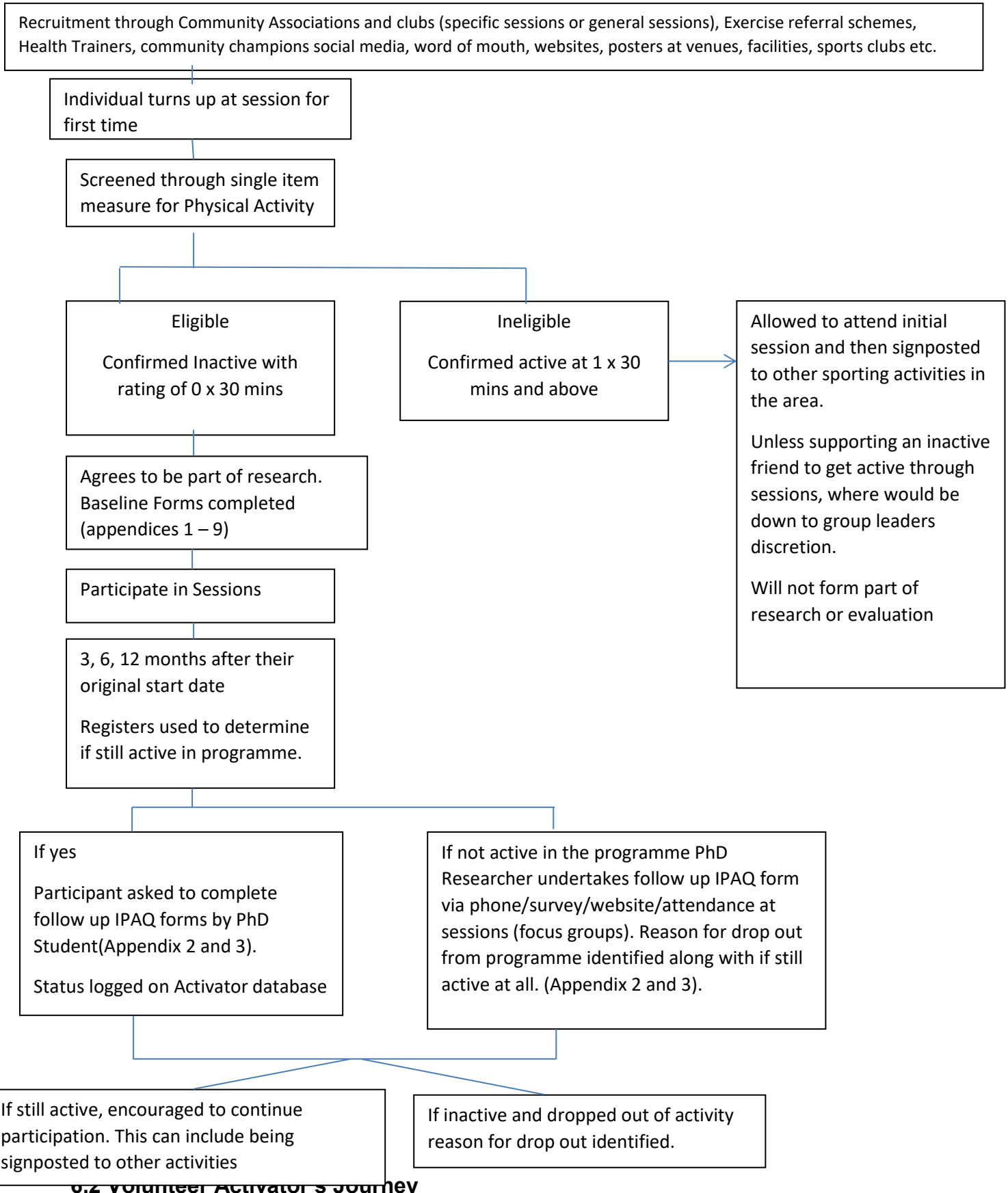
Baseline (and follow-up) measures will include the International Physical Activity Questionnaire short version, and an additional measure of sport participation. They must be asked in the right order, as this is how the IPAQ was validated.

Two versions of the questionnaire are available: for self-completion and telephone interview. Please choose the version most appropriate for your needs. Copies can be found in appendix 4 and 5. The IPAQ wording should not be changed in any way, except to replace 'yard work' with 'DIY', which is an appropriate cultural adaptation of the published questionnaires. The questionnaires contain an additional Questions 8 and 9 that should be asked about sport. These are to investigate the specific contribution that sport might have made to total physical activity.

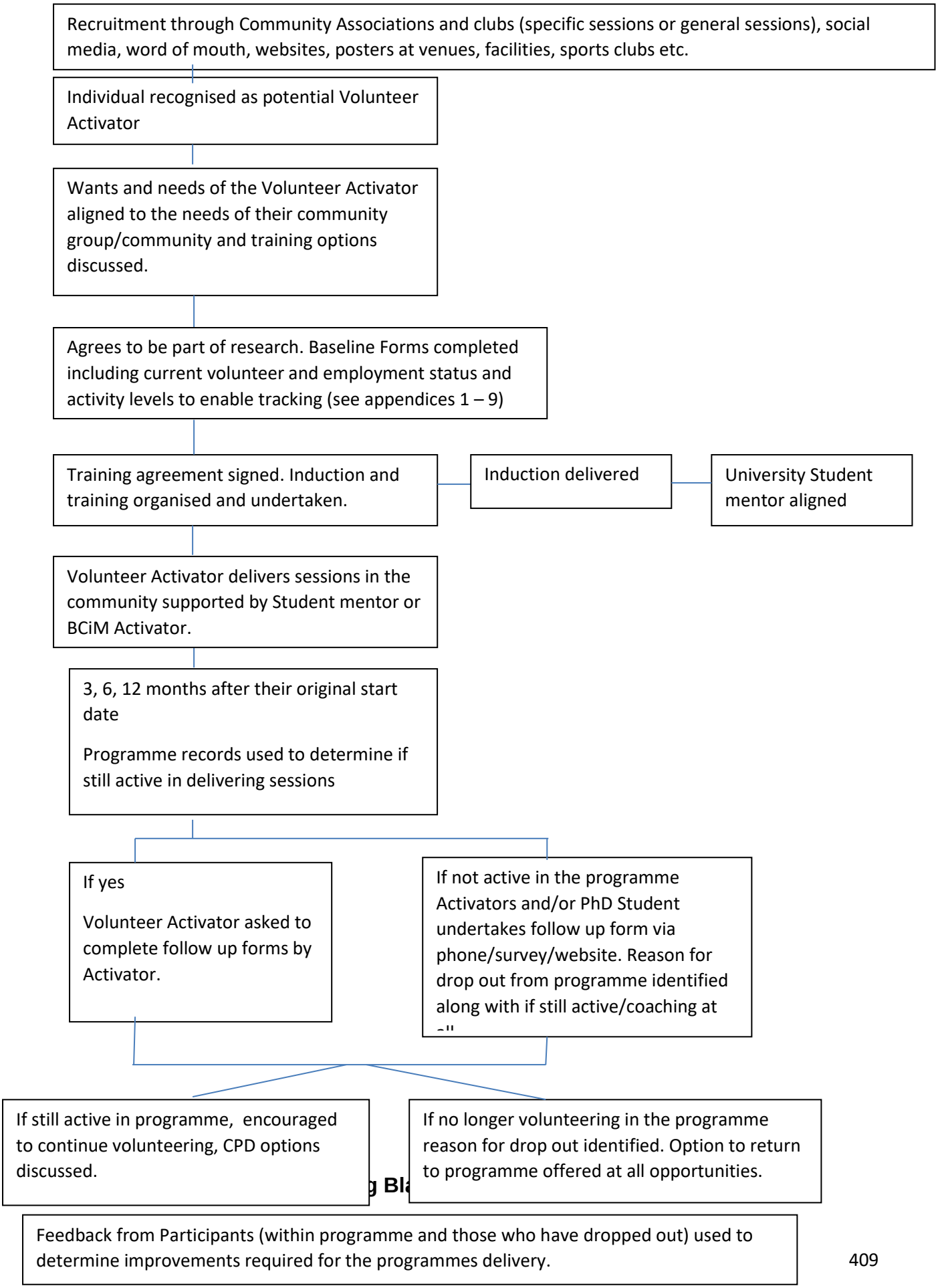
For this project the IPAQ will be used to provide baseline measures regarding activity and sport behaviour, with participants being tracked at 3, 6 and 12 months through the completion of further IPAQ questionnaires to identify changes in behaviour from the baseline.

Section 6.1 and 6.2 provide flow diagrams regarding the participant and volunteers journey within the programme and the data requirements at each of these stages.

6.1 Inactive Participants Journey



6.2 Volunteer Activator's Journey


Recruitment through Community Associations and clubs (specific sessions or general sessions), social media, word of mouth, websites, posters at venues, facilities, sports clubs etc.
Individual recognised as potential Volunteer Activator
Wants and needs of the Volunteer Activator aligned to the needs of their community group/community and training options discussed.
Agrees to be part of research. Baseline Forms completed including current volunteer and employment status and activity levels to enable tracking (see appendices 1 – 9)
Training agreement signed. Induction and training organised and undertaken.
Induction delivered
University Student mentor aligned
Volunteer Activator delivers sessions in the community supported by Student mentor or BCiM Activator.
3, 6, 12 months after their original start date
Programme records used to determine if still active in delivering sessions
If yes
Volunteer Activator asked to complete follow up forms by Activator.
If not active in the programme Activators and/or PhD Student undertakes follow up form via phone/survey/website. Reason for drop out from programme identified along with if still active/coaching at
If still active in programme, encouraged to continue volunteering, CPD options discussed.
If no longer volunteering in the programme reason for drop out identified. Option to return to programme offered at all opportunities.
Feedback from Participants (within programme and those who have dropped out) used to determine improvements required for the programmes delivery.

The evaluation and research study methodology and requirements have been aligned to the Standard Evaluation Framework for Physical Activity, as determined in the contractual arrangements with Sport England. The research methodology for the PhD will receive approval from the appropriate University Ethics Board prior to delivery, this will include consideration of the tools agreed for data collection through the programme.

To meet Sport England Requirements the following data collection is key to the successful delivery of the programme:

Time in Intervention	Data	Method	Collector
Screening	Eligibility to be involved in the programme 0 x 30 physical activity **ALL PARTICIPANTS**	Single Item Measure for Physical Activity (appendix 3)	Volunteers, Deployed students (supervision and training from Activators)
Baseline	Assessment of current physical activity and sport participation **ALL PARTICIPANTS ELIGIBLE FOR PROGRAMME (0 x 30 minutes in screening tool)**	International Physical Activity Questionnaire (IPAQ) Short Version and additional measure regarding sport participation (appendix 4)	Volunteers, Deployed students (supervision and training from Activators)
3 month	Assessment of current physical activity and sport participation **ALL PARTICIPANTS ELIGIBLE FOR PROGRAMME (0 x 30 minutes in screening tool)**	International Physical Activity Questionnaire (IPAQ) Short Version and additional measure regarding sport participation (appendix 4 and appendix 5)	PhD Student via phone, email, attending sessions and focus groups. Data Tracker system will flag up when participants are due for follow up.

Time in Intervention	Data	Method	Collector

6 month	Assessment of current physical activity and sport participation **ALL PARTICIPANTS ELIGIBLE FOR PROGRAMME (0 x 30 minutes in screening tool)**	International Physical Activity Questionnaire (IPAQ) Short Version and additional measure regarding sport participation (appendix 4 and 5)	PhD Student via phone, email, attending sessions and focus groups. Data Tracker system will flag up when participants are due for follow up.
12 month	Assessment of current physical activity and sport participation **ALL PARTICIPANTS ELIGIBLE FOR PROGRAMME (0 x 30 minutes in screening tool)**	International Physical Activity Questionnaire (IPAQ) Short Version and additional measure regarding sport participation (appendix 4 and 5)	PhD Student via phone, email, attending sessions and focus groups. Data Tracker system will flag up when participants are due for follow up.

To meet the essential criteria for the Standard Evaluation Framework for Physical Activity the following data will be collected from participants to aid the evaluation of the programme.

Key for those responsible for data collection:

1 Volunteers, Deployed students (supervision and training from Activators)
2 PhD Student
3 Activators

7.1 Qualitative Data Reporting

Sport England's evaluation requirements include 3 key questions regarding qualitative information that provides the narrative regarding the progress being made on delivering the project:

- What have been the main achievements of your project during the reporting period? What are the main reasons for these successes? *Please describe the methods of delivery you have used to generate success results.*
- What have been the main problems in the delivery of your project? What are the main reasons for these problems and how have you tried to overcome them? Has this worked?

- Please describe any learning from your project that you think would be useful to share with Sport England and/or with other projects receiving Get Healthy, Get into Sport funding.

7.2 Evaluation Reporting Schedule

Both quantitative and qualitative data returns form part of the funding agreement with Sport England. The following submission dates are written into the contract

Data Collection Period	Submission Date	Responsible
April – August 2013	By the 30th of August 2013	BCC Ltd
September 2013 –January 2014	By January 31st 2014	BCC Ltd
February 2014 – July 2014	31st July 2014	BCC Ltd
August 2014 – January 2015	TBC	BCC Ltd
February 2015 – August 2015	TBC	BCC Ltd
September 2015 – March 2016	TBC	BCC Ltd

7.3 Data Requirements for the programme (Outputs and Monitoring Approaches)

PARTICIPANT DATA

Output/Research Area	Indicators	Who will collate and provide to BCC	Method	Frequency
3,000 people who are inactive moving to being active at least 1 x 30 minutes of sport per week	No of people screened	Activators	Single Item measure	Quarterly
	No. of people eligible and starting programme	Activators	Single Item measure	Quarterly
70% of people retained at 3 months	No. of participants active within the programme 3 months after starting	Activators	Attendance Registers	Quarterly
	No. of people reporting involvement in sport and physical activity at 3 month check	PhD Student	IPAQ	Quarterly
60% of people retained at 6 months	No. of participants active within the programme 6 months after starting	Activators	Attendance Registers	Quarterly
	No. of people reporting involvement in sport and physical activity at 6 month check	PhD Student	IPAQ	Quarterly
50% of people retained at 12 months	No. of participants active within the programme 12 months after starting	Activators	Attendance Registers	Quarterly

Output/Research Area	Indicators	Who will collate and provide to BCC	Method	Frequency
	No. of people reporting involvement in sport and physical activity at 12 month check	PhD Student	IPAQ	Quarterly
SEF/Research Related Data				
Participant Satisfaction	% of participants satisfied with the sessions they attend	Activators	Questionnaire	Bi Annually
Measure of Physical Activity Behaviour (Baseline data)	% of participants at each level of PA behaviour	PhD Student	IPAQ	Quarterly
Measure of Physical Activity Behaviour (3,6,12 months)	% of participants at each level of PA behaviour	PhD Student	IPAQ	Quarterly
Measure of Sport Behaviour (Baseline data)	% of participants at each level of sport behaviour	PhD Student	Sport Participation measure IPAQ	Quarterly
Measure of Sport Behaviour (3,6,12 months)	% of participants at each level of sport behaviour	PhD Student	Sport Participation measure IPAQ	Quarterly
Measure of confidence to participate in sport (Baseline, 3, 6, 12 months)	% of participants at each stage of confidence	Activators provide baseline PhD Student provide 3,6,12 months	Participant Form, Focus Group, Phone interview	Quarterly
	% of participants reporting improvements	PhD Student	Participant form, Phone interview and Focus Groups	Quarterly

Output/Research Area	Indicators	Who will collate and provide to BCC	Method	Frequency
Quality of life (Baseline, 3, 6, 12 months)	% of participants at each stage of quality of life from sample	PhD Student	Focus groups	Quarterly
	% of participants reporting improvements from sample	PhD Student	Focus groups	Quarterly
Health Improvements (3,6, 12 months)	% of participants reporting improvements in general health from sample	PhD Student	Focus groups	Quarterly
	% of participants reporting weight loss from sample	PhD Student	Focus groups	Quarterly
Reasons for Drop out from the Programme	% of participants dropping out of BCiM	PhD Student	Interview	Quarterly
	% of participants who drop out of BCiM citing each reason	PhD Student	Interview	Quarterly
Reasons for opting back into the Programme	% of participants who dropped out of BCiM who re-enter at a later date	PhD Student	Interview	Quarterly
	% of participants who return to the programme citing each reason	PhD Student	Interview	Quarterly

Output/Research Area	Indicators	Who will collate and provide to BCC	Method	Frequency
Reasons for choices regarding which activity they took part in	% of participants selecting each reason for the activity they choose to take part in	PhD Student	Interview	Bi-Annually
% of participants dropping out of BCiM	% of participants dropping out of BCiM	Activators	Attendance registers	Quarterly

VOLUNTEERS DATA

Output/Research Area	Indicators	Who will collate and provide to BCC	Method	Frequency
80 Community member trained to deliver sessions through BCiM	No. of community members signed up as BCiM Volunteers	Activators	Programme records	Quarterly
At least 4,000 activity hours per year delivered	No. of attendances combined with length and number of session times.	Activators	Attendance Registers and session details	Quarterly
70% of people retained at 3 months	No. of volunteers active within the programme 3 months after starting	Activators	Programme records	Quarterly
	No. of volunteers reporting involvement in sport volunteering at 3 month check	PhD Student	Focus group	Quarterly

Output/Research Area	Indicators	Who will collate and provide to BCC	Method	Frequency
60% of people retained at 6 months	No. of volunteers active within the programme 6 months after starting	Activators	Programme records	Quarterly
	No. of volunteers reporting involvement in sport volunteering at 6 month check	PhD Student	Focus groups	Quarterly
50% of people retained at 12 months	No. of volunteers active within the programme 12 months after starting	Activators	Programme records	Quarterly
	No. of volunteers reporting involvement in sport volunteering at 12 month check	PhD Student	Focus groups	Quarterly
SEF/Research Related Data				
Measure of Physical Activity Behaviour (Baseline data)	% of Volunteers at each level of PA behaviour	PhD Student	IPAQ	Quarterly
Measure of Physical Activity Behaviour (3,6,12 months)	% of Volunteers at each level of PA behaviour	PhD Student	IPAQ	Quarterly
Measure of Sport Behaviour (Baseline data)	% of Volunteers at each level of sport behaviour	PhD Student	Sport Participation measure in IPAQ	Quarterly
Measure of Sport Behaviour (3,6,12 months)	% of Volunteers at each level of Sport behaviour	PhD Student	Sport Participation measure in IPAQ	Quarterly

Output/Research Area	Indicators	Who will collate and provide to BCC	Method	Frequency
Measure of confidence to deliver sports session (Baseline, 3, 6, 12 months)	% of Volunteers at each stage of confidence	PhD Student	Volunteer Form	Quarterly
	% of Volunteers reporting improvements	PhD Student	Interview	Quarterly
Current Employment status (Baseline, 3, 6, 12 months)	% of Volunteers reporting each employment status	PhD Student	Volunteer Form	Quarterly
	% of participants reporting changes in employment status	PhD Student	Interview / Focus groups	Quarterly
Quality of life (Baseline, 3, 6, 12 months)	% of Volunteers at each stage of quality of life	PhD Student	Focus groups	Quarterly
	% of Volunteers reporting improvements	PhD Student	Focus groups	Quarterly
Health Improvements (3,6, 12 months)	% of Volunteers reporting improvements in general health	PhD Student	Focus Groups	Quarterly
	% of Volunteers reporting weight loss	PhD Student	Focus Groups	Quarterly
Sports qualifications	% of Volunteers reporting specific sports qualifications	Activators	Volunteer form	Quarterly
	% of participants reporting changes in specific sports qualifications	PhD Student	Informal interview & Focus Groups	Quarterly

Output/Research Area	Indicators	Who will collate and provide to BCC	Method	Frequency
Sports Volunteering Status (baseline, 3, 6, 12 months)	% of volunteers with previous experience in volunteering in sport / % of volunteers new to volunteering in sport	Activators	Volunteer Forms	Quarterly
	Changes in sports volunteering status (additional volunteering external to programme)	PhD Student	Focus Groups	Quarterly
Reasons for Drop out from the Programme	% of Volunteers dropping out of BCiM	Activators	Informal interview	Quarterly
	% of Volunteers who drop out of BCiM citing each reason	Activators	Informal Interview	Quarterly
Reasons for opting back into the Programme	% of Volunteers who dropped out of BCiM who re-enter at a later date	Activators	Informal interview	Quarterly
	% of Volunteers who return to the programme citing each reason	Activators	Informal Interview	Quarterly
Intentions of Volunteers (3, 6, 12 months)	% of Volunteers stating sport related employment/self - employment/volunteering	Activators	**Volunteer Form**	
Volunteer Satisfaction	% of Volunteers satisfied with the support given to them	Activators	Questionnaire	Bi Annually

DEMOGRAPHIC DATA

All data will need to be aligned to the following demographics

- Age
- Gender
- Ethnicity
- Disability
- Measure of Socio Economic Status
- Postcode
- PAR Q findings

PROCESS DATA

Output/Research Area	Indicators	Who will collate and provide to BCC	Method	Frequency
130 organisations and clubs trained and mentored to support inactive people into sport	No. of clubs accessing resource developed for this including through workshops.	BCC Ltd	Programme records	Quarterly
	No. of clubs accessing Activator support (if any)	Activators	Programme records	Quarterly
	No. of clubs accessing BCC Ltd support	BCC Ltd	Programme records	Quarterly
2 Cradle to Grave documents available	No. of C2G documents published	BCC Ltd	Publication records	Bi Annually

9.0 The PhD Research Study

As the academic partner for the programme, the University of Wolverhampton will build on their expertise of delivering health, social and sport science research. This includes current topics focussing on:

- behaviours and barriers to sport and exercise participation
- emotional regulation, physical activity in rheumatoid arthritis and cancer patients, and the monitoring of osteoporosis and obesity in the local community.

A detailed research methodology will be developed that will utilise the Health Economic Assessment Tool (HEAT) for sport and the Standard Evaluation Framework for Physical Activity (SEF). It is proposed that this programme will be linked into the University's Social Science and Physiology, Performance and Health research clusters, both of which were formed as part of the School of Sport, Performing Arts and Leisure's commitment to the Research Exercise Framework (REF 2014), ensuring that the necessary rigour and ethical controls are applied to the programme. A PhD Student will be employed by the University to undertake this research, under the guidance of an experienced supervisory team, with support from an Applied Research and Development (ARD) representative. A job description for the PhD student can be found in appendix 4.

The University of Wolverhampton will also liaise and collaborate closely with other educational institutions and lead agencies delivering the "Get Healthy, Get into Sport" initiatives across the country to share emerging findings, strengthen approaches being taken and ensure alignment to any national evaluation requirements.

The issue of universal vs. targeted services is one that is frequently on the agenda of commissioners including Health and Well Being Boards as the need to maximise the outcomes of investment continues to be a priority. This University led research study will provide the evidence for how these services should be tailored for the effective delivery of sport. The study will provide an opportunity to test the forthcoming HEAT for sport within its methodology, alongside testing how best to embed the SEF for physical activity within sporting programmes in the Black Country.

The need for standardised approaches to determining effectiveness of sports programmes has long been recognised at a national, regional and local level. Whilst the SEF for Physical Activity provides a framework upon which to build, the partners in the Black Country believe that there is a need to test the relevance of this to sports programmes and to determine how best to apply it across programmes in future. The research methodology utilised will enable this testing and will influence longer term delivery by enabling benchmarking across localities in the Black Country. This is all scalable to a nationwide level.

The University of Wolverhampton will identify the potential for additional research to be undertaken as part of the dissertations that undergraduates and postgraduates need to complete as part of their degree programmes to add value to the evidence provided through the programme. It is envisaged that this approach could include at least 1 dissertation research project being completed in each of the 4 Local Authority areas.

9.1.1 Research Methodology

Research indicates that individuals are aware of the benefits of exercise and often have good exercise intentions (Lane, 2012; Sheeran et al., 2012). However, it appears that translating an exercise intention into action or pursuing this over time is challenging (Sheeran et al., 2012). Attempting to overcome the 'exercise intention-behaviour gap' requires self-regulatory and

self-control processes in order to overcome internal and external barriers toward exercise (Gollwitzer, 1999).

The PhD student will commence their studies by undertaking a detailed review of the current evidence base for community focused, asset based person centered approaches to getting inactive people into sport. This is likely to draw on evidence that is multi or interdisciplinary in nature, spanning areas such as exercise physiology, behaviour change psychology, sport development policy and sport participation sociology.

The proposed research project will address transition across the duration of the intervention. The key areas to be investigated will be: Why is the individual inactive? How ready is the individual for change? What outcomes does the individual hope to achieve (and are these self-referenced/indicated) and how do these change over time? What social support is available and what part do the activators and volunteers play in the building of support? What is the individual's current and changing attitude and self-efficacy to sport/physical activity and what previous experiences has he/she had? An understanding of these important and interacting indicators of behaviour change will need to be carefully and sensitively assessed.

To ensure there is an understanding of the impact of the programme on social cohesion at the community level, participants, activators and volunteers will all need to have the opportunity to express their views. This could include some form of longitudinal diary, which could be in the form of a video diary or blog. This will be useful to also ascertain the potential impact of the participants on family and friends and could be the basis for a community focus group.

In addition to the quantitative information gleaned from the project, it is also important to understand why individuals 'drop-out'. This could be achieved using a follow-up blog or interview (anonymous and potentially incentivised). For example, if drop out is 900 at 3 months, 1200 at 6 months, and 1500 at 12 months, it will be possible to sample these in order to assess the underlying factors or barriers to continued participation.

Data collection and analysis methods will reflect the diverse disciplines of exercise physiology, behaviour change psychology, sport development policy and sport participation sociology. It is likely that statistical analyses of participation trends, interview and focus group analysis, critical reviews of policy and strategy, large scale surveys, return on investment analysis and detailed multi-faceted case studies will be employed through the three year study to provide detailed insight for the programme.

Ethical approval for the approaches used will be required, although it is recognised that ethical issues to the study should be minimal as the participant data will be anonymised at source with participants providing informed consent.

9.1.2 Universal Services comparator for the Research

The research programme will utilise data and information from 2 publicly funded leisure facilities in each Local Authority area.

Within the 2 selected facilities in each location the research methodology will need to be employed with "members" who identify themselves as inactive (achieving 0 x 30 minutes) of activity when they sign up as a member (whether casual or monthly payment etc.). This will be determined through the use of the single item measure for physical activity (see appendix 1).

If they are identified as fitting in this category the membership person/receptionist/instructor will provide details of the research project to them and ask if they would be interested in being

involved. If they are interested in being involved in the study they will give written permission for their contact information to be shared with the PhD researcher who will then make contact to undertake the appropriate research methodologies. The time outlay for centres would be minimal and the PhD researcher will train them in how to raise the research with new clients etc.

During the research they will be asked the same questions as those participating in the Health Sport Hub targeted localities.

We will look to provide anonymised data for each facility regarding outcomes, changes in activity and sustained participation in activity which could add vital intelligence to that which is already collected at the centres. We will also provide GIS mapping data via the Economic Intelligence Unit at BCC Ltd on participation, IMD and market segmentation to inform programming and promotion.

We will consider whether incentives would be an appropriate method of encouraging relevant participants to take part in the research as part of the development of the full methodology.

Benefits of involvement in the programme for the leisure facilities are:

- Community organisations with trained volunteers signposted to facilities for hire to deliver their sports sessions (increased revenue, increased secondary expenditure through cafes etc., increased footfall)
- Promotion of facility offer to participants in the programme (increased footfall, increased secondary expenditure through cafes)
- Use of insight information regarding communities wants and needs to aid programming and marketing
- PhD research to provide evidence of effective practice in encouraging participation at designated facilities (i.e. what to do more of) and where better practice could be developed (what to do less of) to aid efficiency drives etc. (better use of funding available to maximise outcomes regarding participation and income generation).
- Creation of links and partnerships within communities (increased revenue, increased secondary expenditure through cafes etc., increased footfall)
- Inclusion in Social Return on Investment Evaluation to aid the making of business cases in the longer term for leisure facilities. This will include documentation of the wider impact of leisure facilities and £:£ investment/benefit ratios
- Contributing to a research study of national importance and being referenced as a known partner of the project with funders and wider organisations

It is the intention to work with facility managers to access data regarding revenue budgets, facility usage and secondary spend at facilities (providing that any commercial sensitivities can be overcome via anonymising data appropriately). The following diagram provides details of the data collection that is proposed.

Time in Intervention	Data	Method	Collector
Screening	Eligibility to be involved in the programme 0 x 30 physical activity **ALL PARTICIPANTS**	Single Item Measure for Physical Activity (appendix 1)	Facility staff as part of usual sign up to facility. Those who are eligible given research details to opt in. (TBC)

Baseline	Assessment of current physical activity and sport participation **ALL PARTICIPANTS ELIGIBLE FOR PROGRAMME (0 x 30 minutes in screening tool)**	International Physical Activity Questionnaire (IPAQ) Short Version and additional measure regarding sport participation (appendix 2 and 3)	PhD Student contacting those who opt into research.
3 month	Assessment of current physical activity and sport participation **ALL PARTICIPANTS ELIGIBLE FOR PROGRAMME (0 x 30 minutes in screening tool)**	International Physical Activity Questionnaire (IPAQ) Short Version and additional measure regarding sport participation (appendix 2 and 3)	PhD Student
6 month	Assessment of current physical activity and sport participation **ALL PARTICIPANTS ELIGIBLE FOR PROGRAMME (0 x 30 minutes in screening tool)**	International Physical Activity Questionnaire (IPAQ) Short Version and additional measure regarding sport participation (appendix 2 and 3)	PhD Student
12 month	Assessment of current physical activity and sport participation **ALL PARTICIPANTS ELIGIBLE FOR PROGRAMME (0 x 30 minutes in screening tool)**	International Physical Activity Questionnaire (IPAQ) Short Version and additional measure regarding sport participation (appendix 2 and 3)	PhD Student

10.0 Disseminating the Findings of the Research

The emerging and final findings from the research and Social Return on Investment Evaluations will be disseminated in a number of key ways across the Black Country and nationally:

- Briefing Papers to partners, providing summaries of emerging/final findings and recommendations for future practice.
- Briefing Papers and presentations for Health and Well Being Boards, Clinical Commissioning Groups, CSPAN's and other Board structures at local and Black Country level to inform them of progress, learning, business cases and recommendations for future practice.
- Briefing Papers for Cabinet Members in Local Authorities
- Briefing Papers to the Local Enterprise Partnership regarding economic benefits, skills and training successes and workplace support delivered through the programme.
- An annual seminar to document emerging findings from the research (including any dissertations that have been completed to provide additional evidence to the research).
- At least 3 journal articles submitted/published in relevant journals (either National or International).
- Provision of updates and briefing sheets to CSP colleagues via the CSPN portal and regionally through the West Midlands CSP Network
- Briefing and evaluation papers to the Black Country BeActive Partnership Board
- Attendance at Sport England events as requested by funders.

Appendix 1

BLACK COUNTRY IN MOTION

PARTICIPANT FORM

LOTTERY FUNDED | SPORT ENGLAND

Q1. What is your name? (Please write clearly in the boxes below)

Surname: Forename:

Q2. What is your email address? (Please write clearly in the boxes below)

Q3. What is your preferred contact number? (Please write clearly in the boxes below)

Q4. Are you male or female? (Please tick ONE) Male: Female:

Q5. What is your date of birth? (please include date/month/year)

Q6. Please give us your address:

Q7. What is your postcode? (Please write clearly in the boxes below)

Q8. In the past week, on how many days have you done a total of 30 min or more of physical activity, which was enough to raise your breathing rate? This may include sport, exercise and brisk walking or cycling for recreation or to get to and from places, but should not include housework or physical activity that may be part of your job.

Q9. Which ethnic group do you consider yourself to belong to? (Please tick ONE below)

White: Mixed: Asian: Black: Other: Prefer not to say:

Q10. What is your current employment status?

Employed | Unemployed | Self Employed | School/College | University | Training

Q11. Where would you rate your level of confidence to participate in sport at this moment in time?

Please tick. 1 = Low - 10 = High

1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10

Q12. Do you have any disability that limits your daily activities?

(Please tick one) **Yes** **No** **Prefer not to say**

If you answered yes please give a brief description:

Q13. Physical Activity readiness Questionnaire (Please Tick)	**Yes**	**No**
Has your Doctor ever told you that you have a heart condition?		
Do you feel pain in your chest when you do any physical activity?		
In the past month have you had chest pain when you have not been doing Physical Activity?		
Do you lose your balance because of dizziness or do you lose consciousness?		
Do you have a bone or joint problem (e.g. Back, knee or hip) that could be made worse by any Physical Activity?		
Do you have any other medical conditions that we should know about? Please detail below:		

Declaration: I understand that if I have answered YES to one or more of the above questions, I should seek medical advice before attending activities on the Black Country In Motion Programme. I agree to tell the instructor/coach if there is a change in my medical condition. I understand that this information will be shared with the instructor/coach and that I take part in any activities at my own risk.
Signed: ..... **Date:** .....
Data Protection Statement: All data will be collected and processed in line with the data protection Act 1998.
I understand by completing both this questionnaire and the International Physical Activity Questionnaire that my data will be included in the research for this programme and will be covered by the Data Protection Act at all times.
I give my consent for my details to be used to be contacted by the researcher from time to time.
I consent to being filmed or photographed during any sessions I take part in and that they may be used in publicity materials, images will not be accompanied by names or details that could identify me.
I agree to photos/videos of me being used on Social Media sites for the purpose of this project.
Signature: **Date:**

Office Use Only:	
Volunteer completion:	
BCIM Zone:	
Date of Initial Session:	/ /
Sporting activity undertaken during initial session:	
Venue session held at:	
Data Administrator completion:	
Participant ID number:	

Appendix 2

BLACK COUNTRY IN MOTION

VOLUNTEER FORM

LOTTERY FUNDED | SPORT ENGLAND

Q1. What is your name? (Please write clearly in the boxes below)

Surname: Forename:

Q2. What is your email address? (Please write clearly in the boxes below)

Q3. What is your preferred contact number? (Please write clearly in the boxes below)

Q4. Are you male or female? (Please tick ONE) Male: Female:

Q5. What is your date of birth? (please include date/month/year)

Q6. Please give us your address:

Q7. What is your postcode? (Please write clearly in the boxes below)

Q8. In the past week, on how many days have you done a total of 30 min or more of physical activity, which was enough to raise your breathing rate? This may include sport, exercise and brisk walking or cycling for recreation or to get to and from places, but should not include housework or physical activity that may be part of your job.

Q9. Which ethnic group do you consider yourself to belong to? (Please tick ONE below)

White: Mixed: Asian: Black: Other: Prefer not to say:

Q10. What is your current employment status?

Employed | Unemployed | Self Employed | School/College | University | Training

Q11. Do you have any disability that limits your daily activities?

(Please tick one) **Yes** | **No** | **Prefer not to say**

If you answered yes please give a brief description:

Q12. Physical Activity readiness Questionnaire (Please Tick)	**Yes**	**No**
Has your Doctor ever told you that you have a heart condition?		
Do you feel pain in your chest when you do any physical activity?		
In the past month have you had chest pain when you have not been doing Physical Activity?		
Do you lose your balance because of dizziness or do you lose consciousness?		
Do you have a bone or joint problem (e.g. Back, knee or hip) that could be made worse by any Physical Activity?		
Do you have any other medical conditions that we should know about? Please detail below:		

Declaration: I understand that if I have answered YES to one or more of the above questions, I should seek medical advice before attending activities on the Black Country In Motion Programme. I agree to tell the instructor/coach if there is a change in my medical condition. I understand that this information will be shared with the instructor/coach and that I take part in any activities at my own risk.

Signed:	**Date:** .....

Q13. Please list your current sporting qualifications? Please fill in below.

Q14. Where would you rate your levels of confidence to deliver a sports session at this moment in time?

Please tick. 1 = Low 10 = High

1		2		3		4		5		6		7		8		9		10	

Name of emergency contact, relationship and phone number:

Name:		Relationship to you:	
Phone Number:			

Please list any allergies/injuries we should be aware of:	

Data Protection Statement: All data will be collected and processed in line with the data protection Act 1998.

I understand by completing both this questionnaire and the International Physical Activity Questionnaire that my data will be included in the research for this programme and will be covered by the Data Protection Act at all times.

I give my consent for my details to be used to be contacted by the researcher from time to time.

I consent to being filmed or photographed during any sessions I take part in and that they may be used in publicity materials, images will not be accompanied by names or details that could identify me.

I agree to photos/videos of me being used on Social Media sites for the purpose of this project.

Signature:		**Date:**	

Office Use Only: **Volunteer completion:**	
BCIM Zone:	
Date of Initial Session Volunteer will Run:	/ /
Sporting activities they will lead:	

Appendix 3

The Single Item Measure for Physical Activity

Screening Tool for the Project

'In the past week, on how many days have you done a total of 30 min or more of physical activity, which was enough to raise your breathing rate? This may include sport, exercise and brisk walking or cycling for recreation or to get to and from places, but should not include housework or physical activity that may be part of your job'

The response to this question is zero to seven days.

This question is included in the Participant Registration Form

Appendix 6: Information Sheet for Participants

The Black Country in Motion Project

Aims

The aim of this project is to evaluate and investigate the Black Country in Motion Project and the journeys taken by participants and volunteers. The project objectives are to explore how sport can change people's behaviours, how they feel about themselves and their wellbeing.

Procedures

The project involves you completing a short questionnaire and possibly taking part in a short interview. The questionnaire will take 1-2 minutes to complete and interviews may take 15-20 mins

Possible Risks, Discomfort, Safety and Injury

There are no physical risks in this study and the possibility of social or psychological risks are minimal

Benefits

By taking part in this research, you will help add to existing research in behaviour change through community sport and more importantly provide information to aid the future success of community sport development projects.

Can I stop taking part?

You are free to withdraw from the research process and withdraw the use of information collected at any point of the project

What information will be collected, and how will it be used?

All information collected will be strictly confidential and in line with the code of conduct of the British Association of Sport and Exercise Sciences. Your data will be stored in a locked cabinet at the University of Wolverhampton and eventually destroyed. All scores will be recorded without names; a code will be created to record the scores. The only people with access to the data will be the primary and supervising researchers. No external agencies such as work and pensions, city councils or job centre services will have access to this information.

Many thanks for your support. If you have any questions regarding this study, please do not hesitate to contact me using the details below.

Jade Jackson
BA (Hons), MA, Sport, Culture and Community

Telephone: 07583468968

Email: jade.jackson@wlv.ac.uk

Appendix 7: Information Sheet for Volunteers

Volunteer information

The Black Country in Motion Project

Aims

The aim of this project is to evaluate and investigate the Black Country in Motion Project and the journeys taken by participants and volunteers. The project objectives are to explore how sport can change people's behaviours, how volunteering in community sport projects can change the volunteer's day to day lives and their wellbeing.

Procedures

The project involves you completing a short questionnaire and possibly taking part in a short interview. The questionnaire will take 1-2 minutes to complete and interviews may take 15-20 minutes

Possible Risks, Discomfort, Safety and Injury

There are no physical risks in this study and the possibility of social or psychological risks are minimal

Benefits

By taking part in this research, you will help add to existing research in volunteering in community sport and more importantly provide information to aid the future success of community sport development projects.

Can I stop taking part?

You are free to withdraw from the research process and withdraw the use of information collected at any point of the project

What information will be collected, and how will it be used?

All information collected will be strictly confidential and in line with the code of conduct of the British Association of Sport and Exercise Sciences. Your data will be stored in a locked cabinet at the University of Wolverhampton and eventually destroyed. All scores will be recorded without names; a code will be created to record the scores. The only people with access to the data will be the primary and supervising researchers. No external agencies such as work and pensions, city councils or job centre services will have access to this information.

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Telephone: 07583468968

Email: jade.jackson@wlv.ac.uk

Appendix 8 Informed consent for Research Participation

Informed Consent for Research Participation

Primary researcher: Jade Jackson

Supervising Researcher: Prof. Andrew Lane, Dr. Chris Sellars and Dr. Richard Medcalf

Title of Project: Evaluating the Black Country in Motion

Objective: The objective of this project is to evaluate and investigate the Black Country in Motion Project and the journeys taken by participants and volunteers

Programme: The effects of participating in sport can change a person's behaviour and wellbeing. The research project involves you completing a short questionnaire and possibly a short interview that assesses the relationship between sport, changes in behaviour and how you feel about your day to day life when physically activity. Please complete the questionnaire as honestly as you can. For some people who do a small amount of physical activity, participating in a community sporting project can sometimes change people's behaviour and feelings of wellbeing. The questionnaire typically takes 1-2 minutes to complete and an interview will take between 15-20 minutes. There are no physical risks involved in this study and the possible social and psychological risks are minimal

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You are free to withdraw from participating in this research and withdraw use of your data at any time without any negative pressure or consequences

Please place a cross box to confirm that:

1. You have read and understand the information sheet for the above study and have had opportunity to ask questions ☐
2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason. ☐
3. Agree to take part in the above study and agree to the terms set. ☐

Name of participant:_____

Signature of participant:_____

Date:

If you require further information, please contact: Jade Jackson (University of Wolverhampton)

Telephone: 07583 468 968 **or email** jade.jackson@wlv.ac.uk

Appendix 9 Informed consent form for Volunteers

Informed Consent for Research Participation (Volunteers)

Primary researcher: Jade Jackson

Supervising Researcher: Prof. Andrew Lane, Dr. Chris Sellars and Dr. Richard Medcalf

Title of Project: Evaluating the Black Country in Motion
Objective: The objective of this project is to evaluate and investigate the Black Country in Motion Project and the journeys taken by participants and volunteers

Programme: The effects of volunteering in sport can change a person's behaviour, lifestyles and wellbeing. The research project involves you completing a short questionnaire and possibly a short interview that assesses changes in behaviour and how volunteering in the project has impacted upon your day to day life. For some people who volunteer in community sporting programmes, it is evident that there are changes in their lives such as social, economic and employment. Please complete the questionnaire as honestly as you can. The questionnaire typically takes 1-2 minutes to complete and an interview will take between 15-20 minutes. There are no physical risks involved in this study and the possible social and psychological risks are minimal

Confidentiality: All information collected will be strictly confidential and in line with the code of conduct of the British Association of Sport and Exercise Sciences. Your data will be stored in a locked cabinet at the University of Wolverhampton and eventually destroyed. All scores will be recorded without names; a code will be created to record the scores. The only people with access to the data will be the primary and supervising researchers. No external agencies such as work and pensions, City Councils or job centre services will have access to this information.

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Please place a cross box to confirm that:

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2. Understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason. ☐
3. Agree to take part in the above study and agree to the terms set. ☐

Name of participant:_____

Signature of participant:_____

Date:

If you require further information, please contact: Jade Jackson (University of Wolverhampton). **Telephone**: 07583 468 968 **or email** jade.jackson@wlv.ac.uk

Appendix II - Breakdown of BCiM Physical Activity Sessions

Dudley Borough

Hub	Activity	Number of Participants	Hours delivered	Outcome
Castle and Priory	Women's Couch to 5K running	26	94	Unsustainable due to low attendance
	Multi-sports and Circuits	27	92	Sustained
	Lads Basketball	6	18	Unsustainable due to low attendance
	Swim Buddies	2	3	Unsustainable due to low attendance
	Walking football	10	80	Unsustainable due to low attendance
	Kickboxing taster session	9	1	Taster
Netherton and Woodside	Health in Motion	11	32	Unsustainable due to low attendance
	Lads football	0	0	Unsustainable due to low attendance
	Football - Hope not Hate charity	2	2	Volunteer disengaged
	Gentle exercise taster session	6	24	Taster

Sandwell Borough

Hub	Activity	Number of Participants	Hours delivered	Outcome
Tipton Green	Women's fitness/ couch to 5K running	14	75	Unsustainable due to low attendance
	Zumba	11	121	Unsustainable due to low attendance
	Zumba	14	22	Unsustainable due to low attendance

	Family Multi Sports	0	0	Unsustainable due to low attendance
Smethwick	Table tennis in the park	11	10	Unsustainable due to low attendance
	Pram pushers	10	37	Sustained
	Fitness	4	29	Unsustainable due to low attendance
	Exercise to music	8	26	Unsustainable due to low attendance
	Friends of the park - multisports	4	11	Unsustainable due to low attendance
	Beginners couch to 5k	0	0	Unsustainable due to low attendance

Walsall Borough

Hub	Activity	Number of Participants	Hours delivered	Outcome
Blakenall	Gym	10	10	Unsustainable due to low attendance
	Lads and Dads boxing	6	154	Unsustainable due to low attendance
	Walking football	6	30	Unsustainable due to low attendance
	Youth sports	4	4	Unsustainable due to low attendance
	Zumba	5	12	Unsustainable due to low attendance
	Circuits	8	32	NHS intervention
Bentley and Darlaston	Table tennis	11	55	Unsustainable due to low attendance
	12-17 football	20	462	Sustained
	Walking football	15	113	Volunteers disengaged

	Easyline gym	2	2	Unsustainable due to low attendance
	Walking football	6	11	Unsustainable due to low attendance
	Family Multi sports	0	0	Unsustainable due to low attendance

Wolverhampton East Borough

Hub	Activity	Number of Participants	Hours delivered	Outcome
East Park	Clubbercise	69	450	Delivered by external coach
	Walking football	14	90	Sustained
	Gentle exercise	13	56	Unsustainable due to low attendance
	12-17 football	4	34	Unsustainable due to low attendance
	Tennis	5	12	Unsustainable due to low attendance
Bilston East	Easy line gym	4	8	Unsustainable due to low attendance
	Multi sports	20	120	Sessions delivered by external coach
	Tai Chi	11	125	Volunteer disengaged
	Walking football	17	121	sustained
	Circuits	12	109	Unsustainable due to low attendance
	Nordic Walking	13	25	Fixed term
	Buggy Bootcamp	0	0	Unsustainable due to low attendance

Appendix III – IPAQ Short version

International Physical Activity Questionnaire (IPPAQ) and Sport Measure

INTERNATIONAL PHYSICAL ACTIVITY QUESTIONNAIRE

(August 2002)

SHORT LAST 7 DAYS SELF-ADMINISTERED FORMAT

We are interested in finding out about the kinds of physical activities that people do as part of their everyday lives. The questions will ask you about the time you spent being physically active in the **last 7 days**. Please answer each question even if you do not consider yourself to be an active person. Please think about the activities you do at work, as part of your work around the house or garden, to get from place to place, and in your spare time for recreation, exercise or sport.

Think about all the **vigorous** activities that you did in the **last 7 days**. **Vigorous** physical activities refer to activities that take hard physical effort and make you breathe much harder than normal. Think *only* about those physical activities that you did for at least 10 minutes at a time.

1. During the **last 7 days**, on how many days did you do **vigorous** physical activities like heavy lifting, digging, aerobics, or fast bicycling?

   _____ **days per week**

   ☐ No vigorous physical activities → ***Skip to question 3***

2. How much time did you usually spend doing **vigorous** physical activities on one of those days?

   _____ **hours per day**

   _____ **minutes per day**

☐ Don't know/Not sure

Think about all the **moderate** activities that you did in the **last 7 days**. **Moderate** activities refer to activities that take moderate physical effort and make you breathe somewhat harder than normal. Think only about those physical activities that you did for at least 10 minutes at a time.

3. During the **last 7 days**, on how many days did you do **moderate** physical activities like carrying light loads, bicycling at a regular pace, or doubles tennis? Do not include walking.

_____ **days per week**

☐ No moderate physical activities → ***Skip to question 5***

4. How much time did you usually spend doing **moderate** physical activities on one of those days?

_____ **hours per day**

_____ **minutes per day**

☐ Don't know/Not sure

Think about the time you spent **walking** in the **last 7 days**. This includes at work and at home, walking to travel from place to place, and any other walking that you might do solely for recreation, sport, exercise, or leisure.

5. During the **last 7 days**, on how many days did you **walk** for at least 10 minutes at a time?

_____ **days per week**

☐ No walking → ***Skip to question 7***

6. How much time did you usually spend **walking** on one of those days?

_____ **hours per day**

_____ **minutes per day**

☐ Don't know/Not sure

The last question is about the time you spent **sitting** on weekdays during the **last 7 days**. Include time spent at work, at home, while doing course work and during leisure time. This may include time spent sitting at a desk, visiting friends, reading, or sitting or lying down to watch television.

7. During the **last 7 days**, how much time did you spend **sitting** on a **week day**?

_____ **hours per day**

_____ **minutes per day**

☐ Don't know/Not sure

Finally, I'd like you to think about any **Sport** that you have done in the **last 7 days.** By **Sport** we mean any competitive or non-competitive sporting activity, including sessions of deliberate exercise such as running or jogging. Think only about those sports or exercises that you did for at least 10 minutes at a time.

8. During the last 7 days, on how many days did you take part in any **sport**?

_____ **days per week**

☐ No sport ***Skip to end*** 

9. How much time did you usually spend doing sport on one of those days?

_____ **hours per day**

_____ **minutes per day**

☐ Don’t know/Not sure

This is the end of the questionnaire, thank you for participating.

Appendix IV – Interview Schedule

Participant

- Physical activity history
- Previous community engagement
- Motivations
- Aims (achieved)?
- How did you hear about the session?
- Expectations
- Perceptions of the sessions
- Social support
- Impact of the session/volunteer
- Barriers Challenges
- Positives

If disengaged

- Why they disengaged
- What are they doing now
- Why?

Volunteer

- Tell me about physical activity you had done before the BCiM
- What made you want to try this?
- Tell me about you thoughts before you started this
- Tell about the day you first came
- How did you feel?
- Tell me about you positive experiences
- Tell me about your negative experiences
- How do you feel confidence wise about doing physical activity?
- How do you feel about it?

Appendix V

Informed Consent for Research Participation

Primary researcher: Jade Jackson

Supervising Researcher: Prof. Andrew Lane, Dr. Chris Sellars and Dr. Richard Medcalf

Title of Project: Evaluating the Black Country in Motion

Objective: The objective of this project is to evaluate and investigate the Black Country in Motion Project and the journeys taken by participants and volunteers

Programme: The effects of participating in sport can change a person's behaviour and wellbeing. The research project involves you completing a short questionnaire and possibly a short interview that assesses the relationship between sport, changes in behaviour and how you feel about your day to day life when physically activity. Please complete the questionnaire as honestly as you can. For some people who do a small amount of physical activity, participating in a community sporting project can sometimes change people's behaviour and feelings of wellbeing. The questionnaire typically takes 1-2 minutes to complete and an interview will take between 15-20 minutes. There are no physical risks involved in this study and the possible social and psychological risks are minimal

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3. Agree to take part in the above study and agree to the terms set.

Name of participant:_____

Signature of participant:_____

Date:

If you require further information, please contact: Jade Jackson (University of Wolverhampton)

Telephone: 07583 468 968 **or email** jade.jackson@wlv.ac.uk

Appendix IX - Coding Framework

Engaged Participant		
Inductive	Deductive	Participant ID
Pre-contemplation Contemplation Psychosocial variables • Self-efficacy • Decisional balance	• Prolonged periods of physical inactivity • Acknowledgement of inactivity and detrimental health behaviours • Consequences of behaviour • Friend cohesion • Behaviour change procrastination • Anxiety - apprehension • Barriers to participation	EP1 EP2 EP3 EP5 EP6 EP7 EP9 EP10 EP11 EP12
Preparation Psychosocial variables • Self-efficacy • Social support • Exercise norms	The day the individual decided to seek activity provision • Motives included health, weight loss, seeking social/community support • Feelings How ready is the individual ready to change • Anxiety and apprehension - what to expect • Social support from family and friends	EP1 EP2 EP4 EP5 EP6 EP9 EP10 PV1 PV2

Action
Self-efficacy - increases in confidence
	• Trust in volunteer or instructor
	  • Someone like me
	  • Relatable
	• Feeling comfortable with peers
	• Social support
	• Increased confidence
		EP2
		EP3
		EP4
		EP6
		EP7
		EP9

	• Changes in health behaviours • Someone like me • Familiarity	EP10 PV1 PV2
Maintenance	Seeking alternative activity when unable to attend session • Motivating others to join in alternative activity Seeing and feeling physical differences Increased activity with family	EP2 EP9 EP3 PV2 EP6 PV5 EP7 EP8
Expectations	Well established sessions • attendance Diversity of activity • Keeping it fresh Community Successful marketing and brand awareness	EP1 EP7 EP2 EP8 EP5 EP10 EP8 PV1 EP11 PV5 PV3 PV4
	Maintaining access to community centres and community provision • Prosocial motives	PV1 PV2 EP8 EP11 EP12
	• Feelings of ownership • Sense of community • increased social bonds	EP1 PV4 EP2 PV5 EP5 EP7 EP11 EP12 PV1
Barriers to sustaining physical activity	Physical environment Fragility of social bond Ceasing of session due to unsustainable attendance Time • Commitments such as work, family	PV1 EP5 PV2 EP7 EP1 EP11 EP2 EP12 EP3 EP8
Disengaged Participant		
Inductive	Deductive	Participant ID
Precontemplation to contemplation stages Why were the participants inactive?	• Prolonged periods of physical inactivity • Acknowledgement of inactivity and detrimental health behaviours • Consequences of behaviour • Friend cohesion • Behaviour change procrastination	DP1 DP10 DP2 DP11 DP3 DP12 DP4 DP5 DP6

Psychosocial variables • Self-efficacy	• Ill health • Anxiety - apprehension • Barriers to participation • Lifestyle choice	DP7 DP8
Preparation Psychosocial variables	Anxiety and apprehension Confidence Preparing for the unexpected - expectations • Self-efficacy • Decisional balance - pros and cons • Social norms and support	DP1 DP10 DP2 DP11 DP3 DP12 DP4 DP5 DP6 DP7 DP8 DP9
Action	Realisation of previous behaviour Identifying a sense of belonging - social group and surroundings Seeking alternatives • Gaining confidence to try something new • Self-selected intensity (sessions were too difficult or too easy) Emotions • Relief • Embarrassment • Failure • Disappointment • Guilt	DP1 DP10 DP2 DP11 DP4 DP12 DP5 DP8
Maintenance	Sense of belonging - group dynamics Intensity (see below) Project implementation Ability to do the activity / sport	DP3 DP12 DP4 DP5 DP7 DP8 DP9
Expectations	Established sessions Affiliation with WCT - Higher attendance Professional coaches	DP1 DP10 DP2 DP11 DP3 DP12 DP4 DP5 DP6 DP7 DP8 DP9
	Why had the participant disengaged from the programme • Attendance • Intensity - imposed/self-selected intensity • Lack of differentiation • Change in activity • Priorities - financial, work, family, personal commitments	DP1 DP10 DP2 DP11 DP3 DP12 DP4 DP5 DP6 DP7 DP8

	• Project implementation • Paperwork	DP9
	Prerequisites to participation • Confidence • Privacy • Professional support • Others like me • Not greeted by a gym body • Motivated by volunteer	DP1 DP10 DP2 DP12 DP3 DP4 DP5 DP7 DP8
Participant to Volunteer		
Theme	Sub theme	Participant ID
TTM	• Becoming a volunteer was part of the maintenance of activity • Increase use of community centre facilities • Instrumental use to gain qualification	PV1 PV2 PV3 PV4 PV5 PV6
Confidence	To volunteer in sport and/or physical activity Increased confidence in PA leading to voluntary role (ability and enjoyment - hedonism) Knowing other volunteers - increases in confidence Confidence in ability to complete courses (physical and educational) - literacy challenges Self-efficacy Anxiety and apprehension • Delivery • Inexperience and ability to differentiate • Delivery ability • Paperwork	PV1 PV2 PV3 PV4 PV5 PV6
Empathy	Others ability Understanding participant needs Understanding community needs	PV1 PV2 PV3 PV4 PV5 PV6
Engagement Expectations	Continuity - disheartened by attendance, retention and recruitment Anxiety about keeping interest Marketing and session advertisement Continuity - further commitment Project implementation Feelings of isolation	PV1 PV2 PV3 PV4 PV5 PV6

	Expected further support	
Motivations	Maintaining own physical activity - hedonism Ownership of sessions - familiarity of the group Continuity of sessions Altruism • Inspiring others to exercise • Changing others perceptions of exercise • Changing other perceptions of community Employment Human and cultural capital acquisition Sustained prosocial action	PV1 PV2 PV3 PV4 PV5 PV6
Challenges to deliver Challenges to training	Inexperience Differentiation Understanding others intensity./abilities/pace Prior experience / inexperience • Coaching from own experience - further coaching skills required • Development of delivery skills to differentiate and keep interest	PV1 PV2 PV3 PV4 PV5 PV6

Volunteer		
Theme	Subtheme	Volunteer ID
Anxiety	Inexperience Ability Expectations - unknown • Participant ability • Differentiation • Ability • Attendance	V1 V12 V2 V13 V4 V5 V6 V7 V10 V11
Confidence	Increased confidence in PA and sport delivery Activator or other volunteers as mentors to support Confidence in knowledge Self-efficacy Literacy and educational understanding during training courses Apprehension around differentiation Perceptions of the sporting body	V1 V3 V4 V5 V6 V13 V8 V11 V13 V10
Continuity	Inconsistency of participant attendance Project implementation • Marketing and brand/session awareness	V1 V12 V2 V13 V3

Expectations	Decisional balance Project implementation - affiliation to WCT Attendance Ability to differentiate to large groups	V4 V5 V6 V7 V10 V11
Motivations	Transitional motives - dual motives between prosocial to instrumental Prosocial - expression of values • Engaging in one's community and social reference group • Continuity of community access to provision Instrumental - employment • Positive self enhancement • Acquisition of career skills, opportunity • Enable social mobility • Sustaining activity session	V1 V12 V2 V13 V3 V4 V5 V6 V7 V8 V9 V10 V11
Ownership and belonging	Familiarity of community Communitarianism - altruistism • Volunteerism • Prosocial The development of social bonds Bonding capital Planned and sustained prosocial behaviour	V1 V12 V2 V13 V4 V5 V6 V10 V11
Training	Experience Inexperience Literacy and cognitive comprehension of course contents • Educational inequalities Disengagement due to prolonged periods of non-deployment	V1 V12 V2 V13 V3 V4 V5 V6 V7 V8 V9 V10 V11
Impact	Capital acquisition • Social • Working with other agencies • Bridging and bonding capital • Cultural capital • Human capital • Economic capital - future employment	V2 V3 V5 V6 V8 V9 V11

Appendix VII _ Brand Awareness study

The Black Country in Motion Project
PhD – Sub Study
Pre-Engagement and Brand Awareness Research

February - March 2015

Jade Jackson

Background and context

This report provides the details of current PhD research being undertaken by the University of Wolverhampton, specifically exploring an investigation into the marketing approach undertaken as part of the Black Country in Motion sports and physical activity intervention. Primarily the PhD aims is to provide an evaluation of the BCiM sporting intervention, with the research question *"Taking into account impact and cost effectiveness does a person centred, community led, geographically targeted intervention increase the participation in sport of inactive people based in areas of high health inequalities and low participation, compared to other ' universal' sports interventions".* Developing upon this notion of increasing physical activity, the research will pertain to a psycho-sociological perspective of behaviour change for participants and volunteers. This project has been funded by Sport England's and is part of the larger initiative 'Get Healthy, Get into Sport'.

As a strand for this evaluation and exploration into behaviour change, this report identifies the impact of the BCiM marketing strategy with regards to the communities it targets, and its motivational impact pertaining to the pre-engagement/pre-contemplation/contemplation stages of the trans-theoretical model for behaviour change.

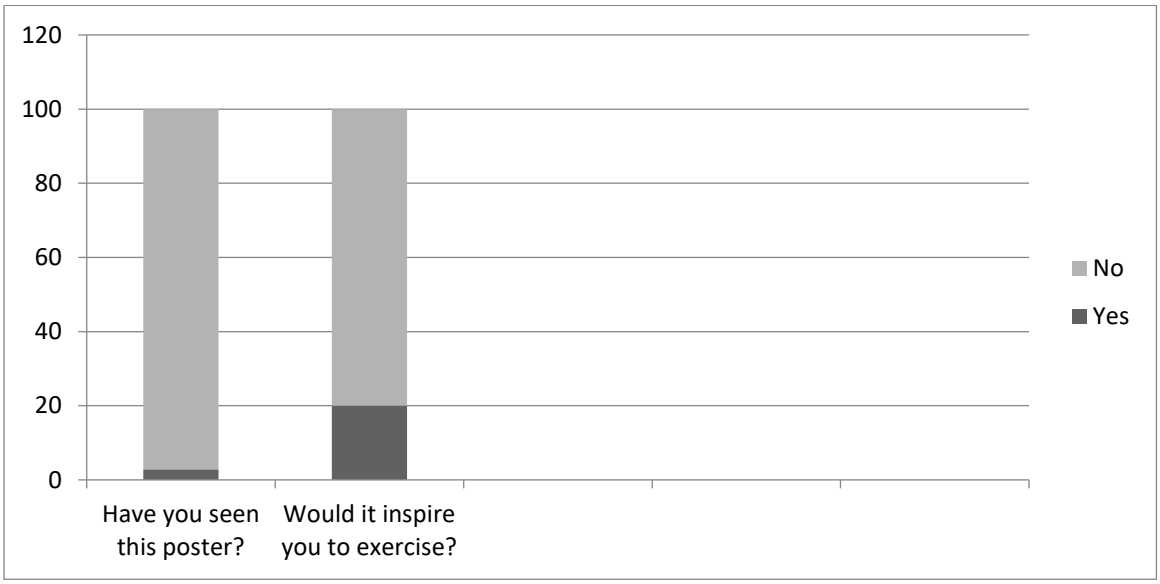
Data collection was undertaken in 3 of the 4 areas within the Black Country, Wolverhampton East (Bilston), Dudley and Sandwell over a 2 week period. The choice in areas for this collation was determined by the target group and where they were likely to frequent. Therefore data was collected from large supermarkets, markets and high streets. In total 1610 people were approached, shown the marketing material and asked 2 questions; 1) Have you seen this before? 2) Would it inspire you to exercise? The researcher chose to take additional notes when participants provided additional perspectives upon the marketing.

Developing this further social media was used to collect further perspective upon this approach to marketing. The premise for this is underpinned by Hue *et al* (2014) who have identified the

significant impact of social media with regards to marketing. Therefore a marketing poster for the BCiM has been uploaded to Facebook asking the 2 primary research questions and additional perspectives.

Wolverhampton East (Bilston)

Data was collected in this location over a 3 hour period in which 776 people answered the research questions. The following provides an analysis of the data collected within the Wolverhampton East area.

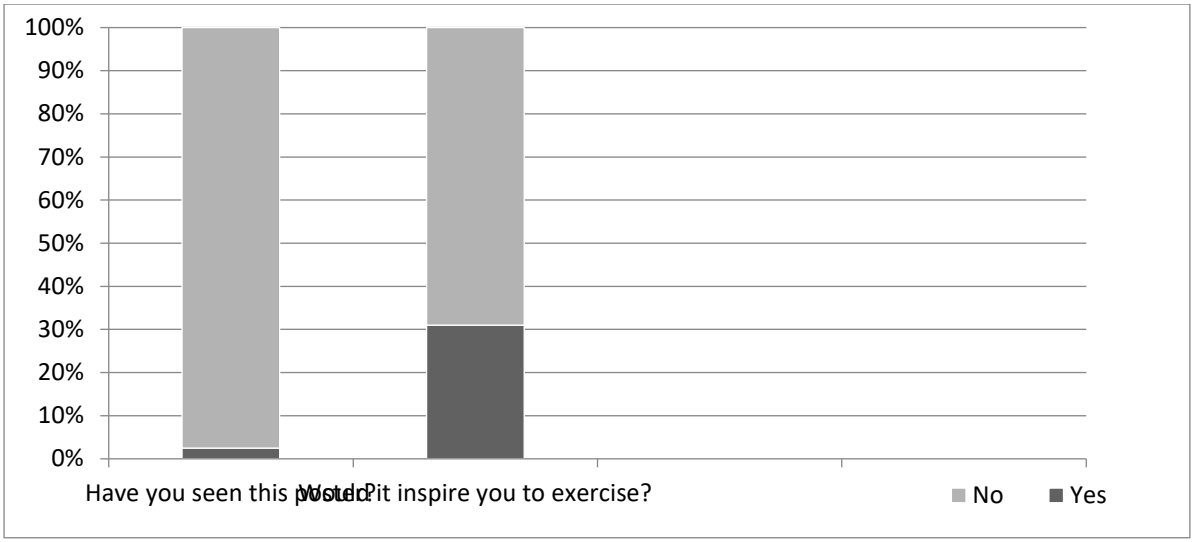


Question 1) 2.8% had seen this marketing in their local area with 97.2% having not seen the marketing.

Question 2) 20% said they would be inspired to do exercise after seeing this poster and 80% said it did not inspire them

Sandwell (Great Bridge)

Data was collected in this location for 3.5 hours and 318 people answered the research questions. The below chart highlights the responses to question 1 and 2

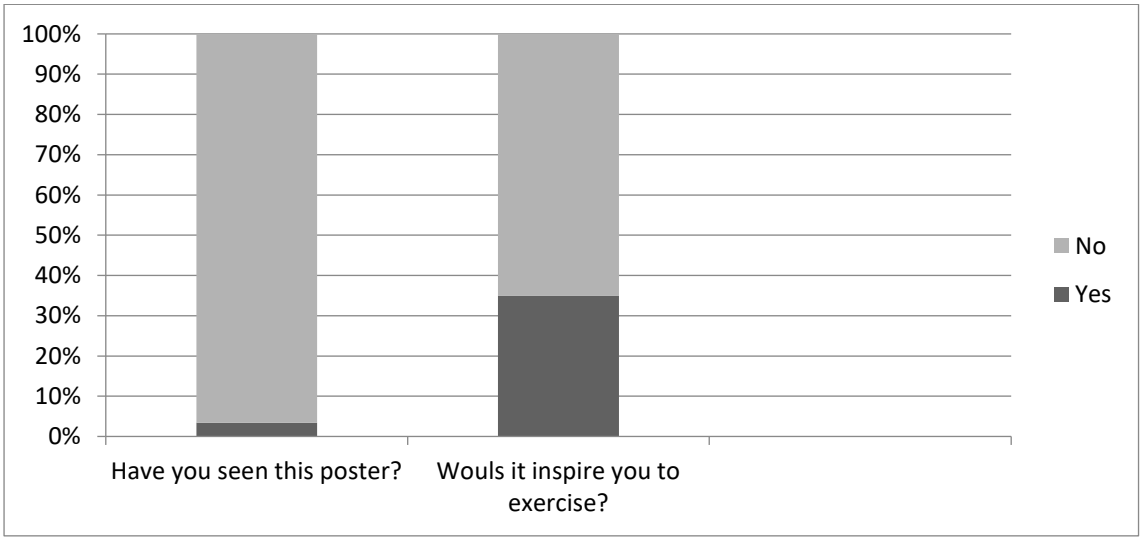


Question 1) 2.5% had seen this marketing in their local area with 97.5% having not seen the marketing.

Question 2) 31% said they would be inspired to do exercise after seeing this poster and 69% said it did not inspire them

Dudley (High Street)

Data was collected in this location for over 3 hours with 516 people answering the posed research questions



Question 1) 3.4% had seen this marketing in their local area with 97.2% having not seen the marketing.

Question 2) 20% said they would be inspired to do exercise after seeing this poster and 80% said it did not inspire them

Additional Comments

When given the opportunity, participants were asked if they were able to give additional comments to the marketing. The following are themes which occurred throughout the 3 boroughs researched;

- Adults thought it was targeting children's physical activity
- Had no relation to the images
- Using imagery with no faces made the material 'too generic'
- Exercise is not something that interested the participant
- Participants were too busy to partake in the activities

Analysis of marketing approach within all areas

The below graph identifies the overall analysis of the pre-engagement research exploring the impact of BCiM marketing within the areas targeted.

	Have you seen the marketing?		Would it inspire you to exercise?	
	Yes	No	Yes	No
Wolverhampton East (Bilston area) – 776 participants	2.8%	97.2%	20%	80%
	22	754	158	618
Sandwell (Great Bridge)	2.5%	97.5%	31%	69%
318 participants	8	310	98	220
Dudley	3.4%	96.6%	35%	65%
516 participants	18	498	180	231

Social Media

To briefly explore the impact of this marketing further social media was used to collect some perspectives relating to the questions posed above (see Appendix A for the comments received). 19 perspectives were given from local people of whom no-one had seen the material however 4 did say it would inspire them to exercise. This is an ongoing element of the research.

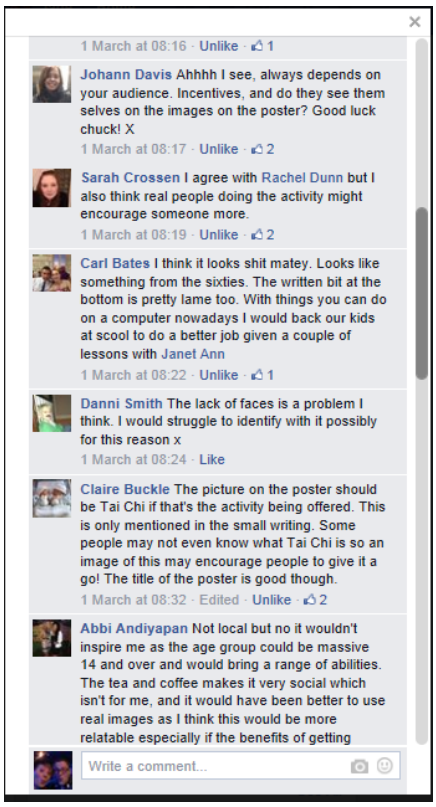
Conclusion

Overall for those questioned 3% had seen the marketing material across 3 of the 4 boroughs targeted (with 97% having not seen the session posters). 38% of the participants questioned had said the poster inspired them to exercise however 62% said it did not inspire them.

Developing the themes expressed in the additional comments and those from social media, the posters imagery (featureless faces) made it difficult for some people to relate to it therefore it did not inspire them to exercise. It had additionally been suggested by participants that the imagery was aimed at children. Developing this further it had been suggested that the wording of 14+ had suggested it was aimed at young adults as opposed to all ages. When identifying what made the participant not feel inspired many had suggested that sport or physical activity was not something they were interested in and had other priorities.

Appendix A


WANT TO TRY SOMETHING FUN AND ON YOUR DOORSTEP?
Are you age 14 or over and do less than 30 minutes of activity a week?
Try Black Country In Motion!
Why not bring your... friends and family along too!
Come and have a go at:
Activity: Tai Chi with FREE Tea and Coffee
Venue: Lower Bradley Community Centre, Wallace Rd, Bilston WV14 8BP
Day: From Monday 12th May
Time: 12:45pm -13:45pm
Cost: £2
Contact: Phil Heighway 07833051048
Try it Love it BeActive
@bcinmotion
www.blackcountryinmotion.co.uk
Jade Jackson
1 March
Morning facebookers!
I know your all opinionated so and so's on here so im seeking some feedback on this marketing poster for my PhD research. First question if yam local ave u sin it? And secondly (for you all) would it inspire you to exercise? Any additional comments appreciated muchly ta x
Tag photo
Add location
Edit
Like · Comment · Stop Notifications · Share
[redacted] others like this.
[redacted] Looks really good Jade, no I ay sin it but I werk in Walsall and have to come up with similar stuff for our area. It's got all the ingredients ! Good luck bab. X
1 March at 08:08 · Like
Jade Jackson Cheers J[redacted] ive not created it im just researching the impact of the marketing and challenging the assumptions we have to target audiences. Thanks for your feedback bab xxx
1 March at 08:12 · Like · 1
[redacted] Really looks good but I think the people need faces . Well done kidda xxx
1 March at 08:13 · Unlike · 2
[redacted] BTW it does make u want to exercise it looks very good with all the different activities going on. xx
Write a comment...



1 March at 08:16 · Unlike · 1

Johann Davis Ahhhh I see, always depends on your audience. Incentives, and do they see them selves on the images on the poster? Good luck chuck! X
1 March at 08:17 · Unlike · 2

Sarah Crossen I agree with Rachel Dunn but I also think real people doing the activity might encourage someone more.
1 March at 08:19 · Unlike · 2

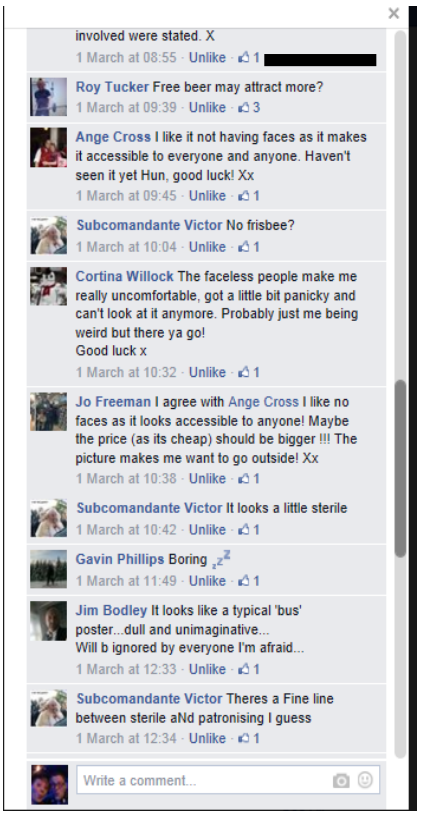
Carl Bates I think it looks shit matey. Looks like something from the sixties. The written bit at the bottom is pretty lame too. With things you can do on a computer nowadays I would back our kids at scool to do a better job given a couple of lessons with Janet Ann
1 March at 08:22 · Unlike · 1

Danni Smith The lack of faces is a problem I think. I would struggle to identify with it possibly for this reason x
1 March at 08:24 · Like

Claire Buckle The picture on the poster should be Tai Chi if that's the activity being offered. This is only mentioned in the small writing. Some people may not even know what Tai Chi is so an image of this may encourage people to give it a go! The title of the poster is good though.
1 March at 08:32 · Edited · Unlike · 2

Abbi Andiyapan Not local but no it wouldn't inspire me as the age group could be massive 14 and over and would bring a range of abilities. The tea and coffee makes it very social which isn't for me, and it would have been better to use real images as I think this would be more relatable especially if the benefits of getting

Write a comment...



involved were stated. X
1 March at 08:55 · Unlike · 1 [redacted]

Roy Tucker Free beer may attract more?
1 March at 09:39 · Unlike · 3

Ange Cross I like it not having faces as it makes it accessible to everyone and anyone. Haven't seen it yet Hun, good luck! Xx
1 March at 09:45 · Unlike · 1

Subcomandante Victor No frisbee?
1 March at 10:04 · Unlike · 1

Cortina Willock The faceless people make me really uncomfortable, got a little bit panicky and can't look at it anymore. Probably just me being weird but there ya go!
Good luck x
1 March at 10:32 · Unlike · 1

Jo Freeman I agree with Ange Cross I like no faces as it looks accessible to anyone! Maybe the price (as its cheap) should be bigger !!! The picture makes me want to go outside! Xx
1 March at 10:38 · Unlike · 1

Subcomandante Victor It looks a little sterile
1 March at 10:42 · Unlike · 1

Gavin Phillips Boring $_zz^z$
1 March at 11:49 · Unlike · 1

Jim Bodley It looks like a typical 'bus' poster...dull and unimaginative...
Will b ignored by everyone I'm afraid...
1 March at 12:33 · Unlike · 1

Subcomandante Victor Theres a Fine line between sterile aNd patronising I guess
1 March at 12:34 · Unlike · 1

Write a comment...

Sam Kennington I think the lack of faces will make it hard for people to relate x
1 March at 12:43 · Unlike · 1

Dana Tooby I am local, haven't seen the poster and it definitely WOULD NOT inspire me to exercise (but you would have to be a genius to do that anyway xx_
1 March at 13:04 · Unlike · 1

Jade Jackson Thanks for the comments people x
1 March at 14:51 · Like

Séverine Lingham-Daillliet It is quite effective. The word free lept at me even i hadn't read the rest. Price is very attractive and would appeal to lower wages. Didn't actually notice the no face bit... but looked at it only briefly. I think a mirror could be very effective. That and being strategically placed at the top of stairs with a caption such as: out of breath?
1 March at 16:21 · Unlike · 1

Petra Pan Havent seen the poster and the '14 and above' indirectly seems to apply to teenagers.... Shame as the activity and price is really good 😒 x x
1 March at 17:44 · Like

Ant Tony Williams Local tai chi poster

Write a comment...

Appendix VIII – Field Observations

Appendix XI: Field Observations - Extracts

October/November 2013- Activator appointment

Jan 2014 - 1st session

- Smethwick hub. Informed by activator - 1st session started identifying language challenges and interpretation of the IPAQ

Feb 2014 - Volunteer induction

- Volunteer induction training identified the challenges volunteers had encountered in supporting participants in the completion of the IPAQ. Suggestion of an easy access guide to completing the IPAQ.

Funders meeting

- TAG meeting with funding body, CPS and activators.
- Discussions around increasing participant numbers and using existing provision across the black country
- Meeting participant targets were the primary emphasis of this meeting, activators were to requested to meet a specific target of 250 participants a month
- Concerns of this were discussed and it was highlighted by activators this target maybe unachievable due to the limited marketing, brand awareness and development of community sessions.

March 2014 - Smethwick Hub

- Observing a 6th Exercise to music session held at a sikh temple with attendees being older women from the temple
- Volunteer has identified challenges in completing IPAQ due to language barriers with participants. Fortunately the volunteer was able to translate however there may be instances where she would be unable to do this i.e. lack of time if she was delivering activity
- Conversations with volunteer reveal her concerns regarding her ability to deliver the activity for a long period of time and keeping the activity interesting enough for participants to return
- Session is roughly 40 minutes and all participants worked hard.
- Participants appeared to enjoy the session and there is a positive community feel to this group. The women laughed and spoke frequently when exercising.

Castle and Priory circuits

- Session had been established for 4 / 5 weeks prior
- Initially attended the session with the aim of observing the group however eventually joined in the activity as participants had highlighted they felt uncomfortable being watched.
- This group was a exercise to music/fitness session delivered by (name) activator and WCT/BCiM volunteer. Previous sessions included included basketball and football.
- Sessions vary in sports and activity. It is highlighted that the variety of the sessions and introduction of new sports.
- Group consists of community members who regularly use the community centre or some are volunteers who manage the centre
- The community dynamics appear to be around the social groups of the volunteers and those who participate have known the volunteers and family members for a number of years.

April 2014 - Progress meeting

- It was disclosed today that the initial project operations manager was leaving. No subsequent replacement appointed. Management of the project was now undertaken by CPS director

Castle and Priory circuits

- Revisiting community centre group
- Participated with the group in a football activity session delivered by WCT volunteer.
- A significant number of participants have attended
- Informal interview with key members of the group have identified that facebook has been fundamental in the recruitment of new participants however some members of the community, who use the centre, will not attend the sessions due to differences with those that attend.
- Centre volunteer has highlighted that come participants attend intermittently.

Castle and Priory Running

- Joined the ladies running group in Priory park in which the volunteer had 4 runners attending.
- Partook in the session with the group to gauge the dynamics and the relationships they had built
- Volunteer had disclosed how she wanted to use this experience as a way to gain employment and it was suggested that there would be opportunities for those who attend the group as participants to then go on and attend a training course to deliver the running session.
- When speaking to the runners they had identified that they had prior anxieties regarding running and what was expected of them. Preconceived notions of the activity were discussed and it was identified that they had thought they were required to be able to run long distances for prolonged periods of time to be able

May 2014 - Translation

- Meeting with local Gujarati group to examine translating the IPAQ. This highlighted the context in which the word ‘intensity’ would be misunderstood in certain Asian dialects. In some Indian speaking dialects there is not word or translation for the word intensity. As this is a vital element to measure in the IPAQ, it was concluded that certain groups would be excluded from this method of data collection.

Bentley and Darlaston North Hub - Exercise to music and Boxercise

- Introduction to a group of volunteers who are currently going through the exercise to music and boxercise coaching courses. This group have been recruited by WHG (Walsall Housing Group) as part of their healthy town intervention and the BCiM are using them to facilitate activity delivery using the school facilities.
- Discovered the social dynamics of this group, (name) coordinates this group, works in the school, liaises with appropriate organisation (course providers, WHG project leads, ect) and directs the group with regards to this programme. Other volunteers are either dinner ladies at the school, teaching assistants in the nursery or parents.
- The aim is to recruit parents of the children who attended the school to either boxercise or exercise to music
- In conversation with the volunteers on the exercise to music course, they had expressed some of the educational challenges they had encountered with regards to their understanding of anatomy and physiology. It was identified that some of the women had left school with little or no formal qualifications therefore did not have a full understanding .

- Sessions were planned to be delivered in the sites nursery space which was a small portacabin. Discussion arose about concerns of space to deliver the sessions (the school hall was not accessible when the school was closed).
- Volunteers had also discussed using a local community hall however a hiring fee would mean charging for the sessions which it was considered parents would not do.

Activator meeting

- Met with activator to discuss the development of the project
- The use of existing provision appears to be successful in the borough of Walsall, where a community access gym, walking football and schools appear to be more established, provide the starting foundations of up and coming sessions.
- Double funding was discussed, in which funding and participant numbers can not be used twice for similar projects, the activator identified concerns of this. Therefore those who had participated in previous intervention would attend sport and exercise courses to enable then become community volunteers to facilitate activity in their communities.
- The activator had high expectation with regards to sustainability for these community groups as they were prosocial and active in their communities.

July - Get Healthy Get Active Conference

- Workshop and conference with project funders and other nationally funded projects
- No other project is as complex in its design or has a harder target group
- Other projects are meeting KPI and targets however the majority have referral programmes such as GP's, health intervention signposting and charities making recruitment alot easier.
- Sessions are delivered by coaches and exercise professionals
- There appeared to be no other GHGA project that had activities delivered by volunteers or had similar demographics / inactivity levels.

Aug 2014 - Activator meeting

Project progress

- Limited activity delivery due to school holidays and a decrease in participant attendance. It is suggested this is a result of children being off school, change in routines and possible holidays.
- Dads and Lads boxing/football, circuits, running, exercise to music and Tai Chi sessions had ceased during this period
- Short courses such as Nordic Walking (pre-existing provision based at Bert Williams) was continued... (differing demographic group than the target
- Still a significantly low number of participants and pressures from funders was discussed. Using this time to increase brand awareness and marketing of sessions in this time was highlighted as a priority
- Plans to deliver new sessions in the following month was identified

Sept 2014 - Smethwick Exercise to music follow up

- Attended a follow up with volunteer and temple exercise to music group
- There has been a reduction in the numbers that now attend the group
- it was speculated by the volunteer that this was due to some of the elders at the temple. She had been approached by some of the older men at the temple regarding their thoughts of appropriateness of the session and believes this is why some of the women had stopped attending
- Discussed the recruitment of other participants from neighbouring community centres and temples to join the sessions - raised concerns regarding sustainability and disclosed she was going to be stopping the sessions due to pregnancy

SAG meeting

- Steering group meeting to identify the progress of the project - meeting targets is primary discussion with Sport England. The understanding of this project being a pilot

with the aim of examining community as a motive for exercise appears to not be recognised when discussing meeting targets and KPI..
- Delivering the research element of the programme highlighted the limitations of pre-existing measures to gain usable information on activity or activity increases.
- The use of existing provision from each borough discussed

Blakenall hub - Dads and Lads boxing

- Met with 3 volunteers who were involved in the running of a local gym for the community or the community/youth centre.
- All had prosocial motives and were involvement with the community.
- This community had undergone significant intervention from local police and refurbishment of derelict houses.
- All volunteers were in the processes of BCiM volunteer induction
- Interviewed volunteer who delivered Dads and Lads boxercise, he discloses that at times he will allow the local boys to play football in this period if none of the men turn up for boxing. This was in a bid to sustain use of the facilities

Bilston East - Tai Chi sessions for older adults

- Attended gentle exercise to music session at a small community centre which is ran voluntarily by a group of older adults from the community.
- Volunteer discusses her depth of experience and passion to develop older adults physical activity. coordinating easyline gym sessions and volunteers for age uk
- Participants are actively involved in their community
- Discussion with participants have identified that they are inherently involved in the community centre. 3 of those attending the session volunteer at the centre and are part of it committee.
- Volunteer interview was conducted the week later and it is highlighted that the volunteer had extensive experience of volunteering however aimed to be eventually paid for this following obtaining her level 2 qualification in Tai Chi.
- The volunteer had identified concerns around keeping the sessions interesting as she stated that there is only so many times you can do the same activity.
- Marketing to attract new participants and the use of the current participants knowledge of the area is highlighted with regards to developing the session

Oct - 2014 - Bentley and Darlaston Exercise to Music and Boxercise follow up

- Attended a meeting with some of the volunteers to discuss the delivery of sessions.
- Sessions had not been well attended by parents, regardless of taster sessions and a push on marketing it through the school
- A number of those attending the exercise to music qualification had dropped out and were no longer volunteering. Some not completing the course.
- Members of this group had further dropped out due to a disagreement. A volunteer had disclosed that this was due to the formalisation of the sessions in a bid to seek funding. It appeared that once this session had gone from an informal activity in which volunteers attended to sustain activity, to formal activity where funding was sought, relationships began to be strained.
- There was a clear divide in the group

Meeting with Activator

- It was highlighted the challenges faced by the activators to increase participation - at this point 96 participants had registered and retention of this was a challenge
- It was highlighted that retention challenges were associated to intermittent attendance and low numbers in groups.
- Examining how this was going to be overcome raised the challenges faced in engaging with existing provision and those who were in the steering group.
- Frustrations were expressed regarding the pressures of these targets and that the activators had volunteers who had received training and were waiting to be deployed.
- Further frustrations were identified when support from university students to mentor new volunteers had failed.

- Successes in the recruitment of volunteers was identified however increased pressure to deploy them was indicated
- Discussion of incorporating satellite clubs as targets

Dec - 2014

- It appeared that sessions had reduced due to the christmas period and a small number of participants had attended those sessions that were still running

Interview with volunteer - Smethwick

- Sessions had ceased due to season
- Frustrations due to lack of attendance of new recruits
- Attempts made to change activity as the session is becoming repetitive

Jan-2015 -Castle and Priory Circuits and multisports follow up

- Participated in activity session with a smaller group than last time, it was highlighted that numbers had significantly reduced prior to the christmas period and in one instance only 2 members had attended
- The centre volunteer had identified that she had had a massive marketing push to raise awareness of the sessions being held at the community centre
- It had been discussed that the activator was accessing funding to provide 5 weeks of netball through NGB Netball England

Activator meeting

- Informal discussion with activators regarding brand awareness and marketing strategies to increase participation numbers - attempts of marketing appear to be where people who are active or actively engaged in their communities (i.e leisure centres, libraries and community groups)
- Marketing has been done through the facebook page, however you have to look for it to find it therefore suggesting an existing awareness of sessions.

Dudley Leisure centre Swimming buddies

- Attended session at a local swimming pool in which volunteers act as buddy to support people who wish to develop swimming skills or need support in swimming
- This was the 4th session and no participants have yet registered with this session.
- The volunteer expresses considerations of dropping out of the programme due to lack of attendance and thus questioning the sustainability of the session
- Activator made aware of this and there has been attempts at deploying this volunteer to another session, once it is established

Feb 2015 - Bentley Youth football and walking football

- Attended session with activator
- Session has been running for a
- Meeting 2 volunteers who delivered the session had been deployed to the BCiM following a job seeking intervention linked with the Kelly Holmes Trust. Both volunteers knew the area and resided in nearing estates.
- The session was split in 2, Ist session was a youth football session, participants were aged between 11 - 17. This session was attended by a significant number.
- 2nd session was part of a double walking football session that was initially established by WHG from previous healthier lives funding
- When discussing the volunteers, the activator highlighted his frustrations with these volunteers as at time they had failed to attend, without informing him and therefore the sessions had been cancelled. This had had a subsequent effect on the retention of participants

Dudley Leisure centre swimming buddies

- Sessions ceased due to unsustainable low numbers. Volunteer has additionally left the programme

Activator interview

- Day with project activator visiting sessions and potential locations within the boroughs of Walsall and Wolverhampton East
- Discussions included; meeting targets and how these were still a challenge. The use of incentives was discussed however this may impact on project funding.
- Marketing strategies and brand awareness appeared to be ineffective in certain areas as recruitment was initially around word of mouth
- Support from steering group would be beneficial to access pre existing groups and utilise their networks

Blakenall - Dads and Lads Boxing - Zumba

- Attended catch up session with boxing and zumba sessions volunteers with activator
- Boxing session had not been delivered in a number of weeks due to the disengagement of the dad from this session. When discussing this session with the volunteer, it was highlighted the difficulties the volunteer had had in obtaining the data, stating a number of the participants were illiterate and would avoid filling in paperwork.
- This may be the reason this group have provided incorrect numbers, no contact numbers or not answered when follow up data collection was attempted
- Boxing session was now an informal football session in which the local youth group no additional data collection was provided
- Other volunteers were waiting to begin their exercise to course and in the meantime were supporting a qualified zumba instructor. These classes were charging participants a small fee to contribute to the instructor and the project contributed to the room hire and outstanding .

Handball course with WCT and BCiM volunteers

- To increase knowledge of other sports volunteers were given the opportunity to attend a handball course which was delivered facilitated by the WCT.
- Took this as an opportunity to meet some of the volunteers who i had had difficulty contacting and discuss their experiences. 3 of these volunteers had been deployed to support existing sessions such as running, exercise to music and tai chi/gentle exercise classes.
- The volunteers had discussed their frustrations with waiting for deployment and it was highlighted that some other volunteers had disengaged or sought alternative volunteering opportunities.

Wrens nest - introduction to new participant

- Attended Netball session delivered by NGB
- Introduced to new participant who had started the sessions. This participant had travelled 4 miles to get to the session and had no previously founded relationships with this community group.
- It had been suggested by the activator that participants took ownership of the session and attended activity courses to enable them to deliver the sessions themselves. Centre volunteers had agreed to this as did a participant. This participant is not a community member

Lower bradley - Tai chi group

- Attended session to meet participants, to observe social dynamics and discuss their experiences
- Sessions had ceased due to the volunteer leaving to start a different group in another part of Wolverhampton east. Previous interview with this volunteer had highlighted their wish to gain more qualifications in the hope of gaining employment as a coach
- The participants i met with were the volunteers from the centre and had expressed an interest in the further delivery of exercise sessions.
- It was this discussion that it was made apparent that retention of participants was difficult due to transport and health issues of some of the participants.
- Recruitment was additionally discussed, it appears that these volunteers had assisted in the recruitment and marketing process in a bid to increase participation of the session. These participants distributed marketing material and had gone door to door within their communities.

Brand awareness and pre-engagement study

- To identify brand awareness, market research was undertaken in 3 locations in the centre of the hubs.
- It became apparent, a significant number of residents had not seen the marketing
- Further research identified that the marketing material was not suitable to motivate or attract interest. People thought it was aimed at children
- As a result of this substudy, marketing was pulled pending an external agency redesigning

March 2015

Bentley - walking football

- Observed the Bentley walking football session
- Interviewed volunteers, they discussed how they had accessed the programme and that it was a conditional term for them to receive their JSA benefits. If they failed to attend courses and fulfilled a certain number of voluntary hours they would lose money. This shifting the prosocial volunteerism paradigm which underpinned this project.
- It was later highlighted by the activator that the volunteers were at time unreliable and often failed to inform the project organisers if they were not attending a session, at times the activator would have to coach or facilitate the session

Activator interview

- Discussing the progress of the project and the impact of marketing being removed.
- Pressures of meeting targets whilst having no marketing was challenging
- Discussion around the challenges of collecting follow up IPAQ data as engagement in the research process was limited within some groups. It was suggested that this data was collected during attendance of a session however this would provide a one dimensional perspective from those who had adhered to the programme.

Wolverhampton East - Exercise to music

- Volunteer previous delivered the tai chi and gentle exercise session to Bradley older adults and wanted to dain further qualifications and became
- Identified challenges encountered with the exercise to music qualifications having failed the initial exam.
- It was highlighted that the terminology and subject context was difficult for those who had no prior knowledge of anatomy and physiology. This was a similar experience to previous sessions

Tipton Green - Multi sports and fitness

- Observed activity session delivered by Activator
- This centre is ran and facilitated by a small group of muslim women who live in the area. This part of tipton green is renowned for it BNP and right wing facilitation.
- Introduced to centre manager who is proactive in the community and works towards providing school holiday clubs, youth clubs and seeks funding to provide transport for older adults to access the centre.
- Participants at the session

April - 2015 - IPAQ

IPAQ substudy

- Continual challenges to gathering follow up data from the IPAQ. Significantly low response rate to follow ups, regardless of the attempts made at contact.
- Gauging the best approach to ensure follow up data is possible.
- Delaying the IPAQ (post session), online access to the IPAQ and deferred IPAQ completion were the participants completes this at home and brings it back to the next session.
- Discussion with the activators how best to implement this and to which session this would be suitable.

- Follow up data from this measure is essential to measure activity

Tipton Green -

- The activator was leaving the session with the intention of handing over to participants who were becoming volunteers.
- It appears this has resulted in mixed emotions with some of the participants being excited by this and others leaving the sessions. When asked why they were leaving the sessions they had said they wanted the variety of activities that someone with wider knowledge would have. Suggesting that someone like me was not suitable for this group.
- This limitation of knowledge and ability to differentiation tasks was further highlighted by other sessions - suggestion made to project facilitators regarding floating volunteers - i.e. to ensure sustainability maybe rotating volunteers.

May 2015

Bilston East - walking football

- Meeting with walking football participant to examine processes of change and the social dynamics of the group.
- This was not a pre-existing community.
- Sessions were held a leisure centre and those that attended did not know each other previously.
- The session was delayed to ensure staff were free at the leisure centre so that participants were able to have a full game of football. This was due to poor attendance

Bentley - walking football

- Interview with walking footballer who had disengaged following poor attendance
- Previously attended the WHG sessions which were more established and were involved in playing tournaments. This provision had ceased due to funding stopping
- Participant had suggested that the inconsistency of volunteers and limited numbers were a result in his disengagement

Bilston East - Tai chi

- Meeting with participants following the Tai Chi sessions stopping. This was to identify experiences and post BCiM activity
- Participants were not attending additional provision and requested similar activity from the BCiM however they were aware that low participant attendance would result in unsustainable sessions

Volunteer interview -

- Interview with volunteer who had been part of a number of BCiM activity sessions and was now a Health Trainer for Dudley. Reduced volunteering hours considerably due to limitations of time

Community Youth Exercise Qualification (CYQ) -

- A number of community volunteers had attended this course and were subsequently interviewed as part of an informal focus group.
- Challenges were identified as time as many of the course delivery days were in the daytime which restricted those that were employed

June 2015

CYQ volunteer interview

Volunteer focused follow up with Activators

- Discussion of volunteer mentors
- Floating mentors to differentiate activity
- Disengagement of participants due to limited

Activator leaving the project - seeking alternative employment in sport development sector

Tipton Green

- Attended session to examine the impact of the activator and to explore the social dynamic now participants were delivering the activity sessions and the sessions were changing to activity.
- Activator had delivered a range of sports and physical activity. Due to leaving the project,
-

July 2015

- Data gathered from engaged volunteers and participants.
- Prosocial attitudes to the sessions
- One sided perspective given the challenges faced in engaging those who are disengaged
-

Aug 2015

Activator interview

- Challenges to recruitment
- Retention
- Limited input from steering group members
- Financial restrictions encountered when providing training courses for volunteers

Sept 2015

Activator leaving the project - new employment in university sport provision

- Discussion about feelings towards the BCiM and it it was highlighted the activator felt frustrated that the project was not meeting the targets.
- Identified concern around sustainability due to retention and recruitment
- Proud of the opportunities that were given to volunteers of the programme
- Discussion of leaving a legacy in which those that had volunteered following inactivity would subsequently maintain activity and possibly find employment opportunities

Nov 2015

Comparative study

- It has been highlighted that the funding body were unable to gather attendance data from the leisure services from the 4 boroughs of the BCiM. This was following 2 of the boroughs refusing sharing this data, therefore an alternative RCT group are required.
- Discussion around gathering data from local leisure centres within the BCiM zones
- This may be challenging as this would require all leisure centre duty staff to be trained to gather data and would further compromise data protection and data confidentiality

Jan 2016

Comparative study

- Meeting with project manager and activator to implement the gathering of data for the comparative study. The leisure centres chosen within this study are not within the BCiM target areas

Feb 2016

Disengaged participant focus

- Due to challenges in recruiting disengaged participants for interview, incentives have been used.
- Further challenges have been identified in ensuring those disengaged are from the socioeconomic demographics

April 2016

Data collection has finished

- Challenges faced obtaining follow up data from those that provided data from leisure centre provision
- Current 9 have provided data - reaffirming challenges to pre-designed evaluation methods